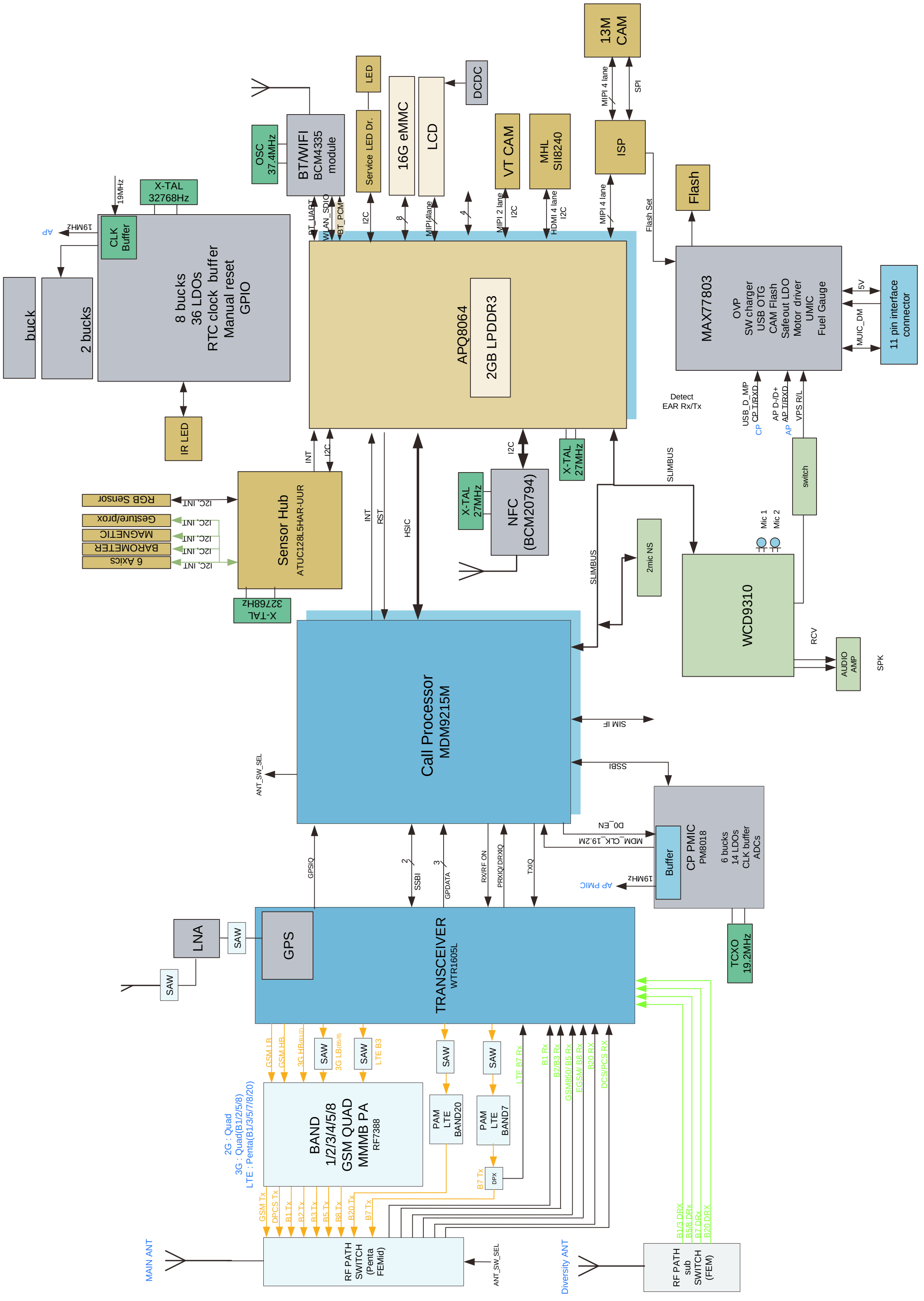
8. Level 3 Repair

8-1. Block Diagram



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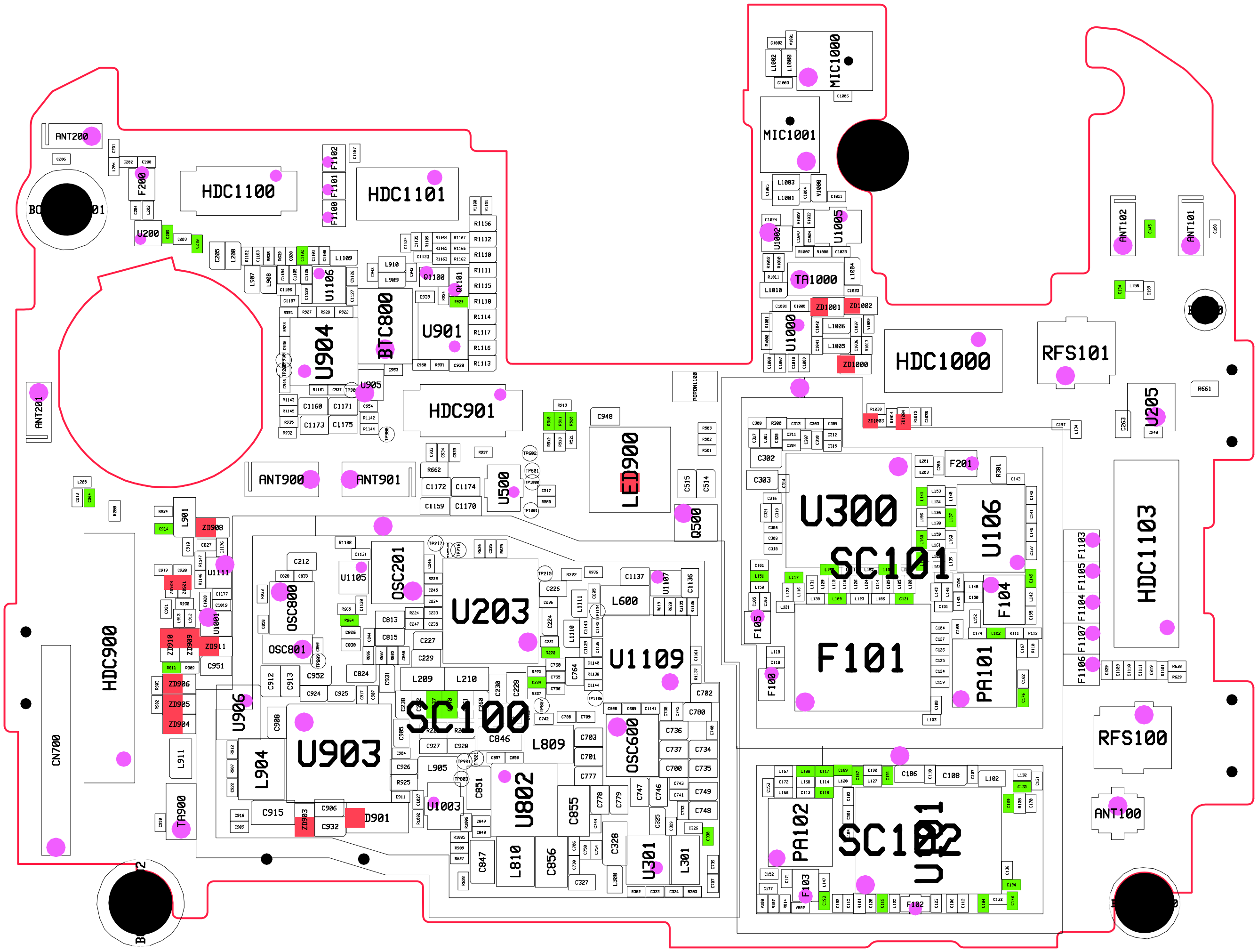
8-2. PCB Diagrams

8-2-1. Main PCB Top



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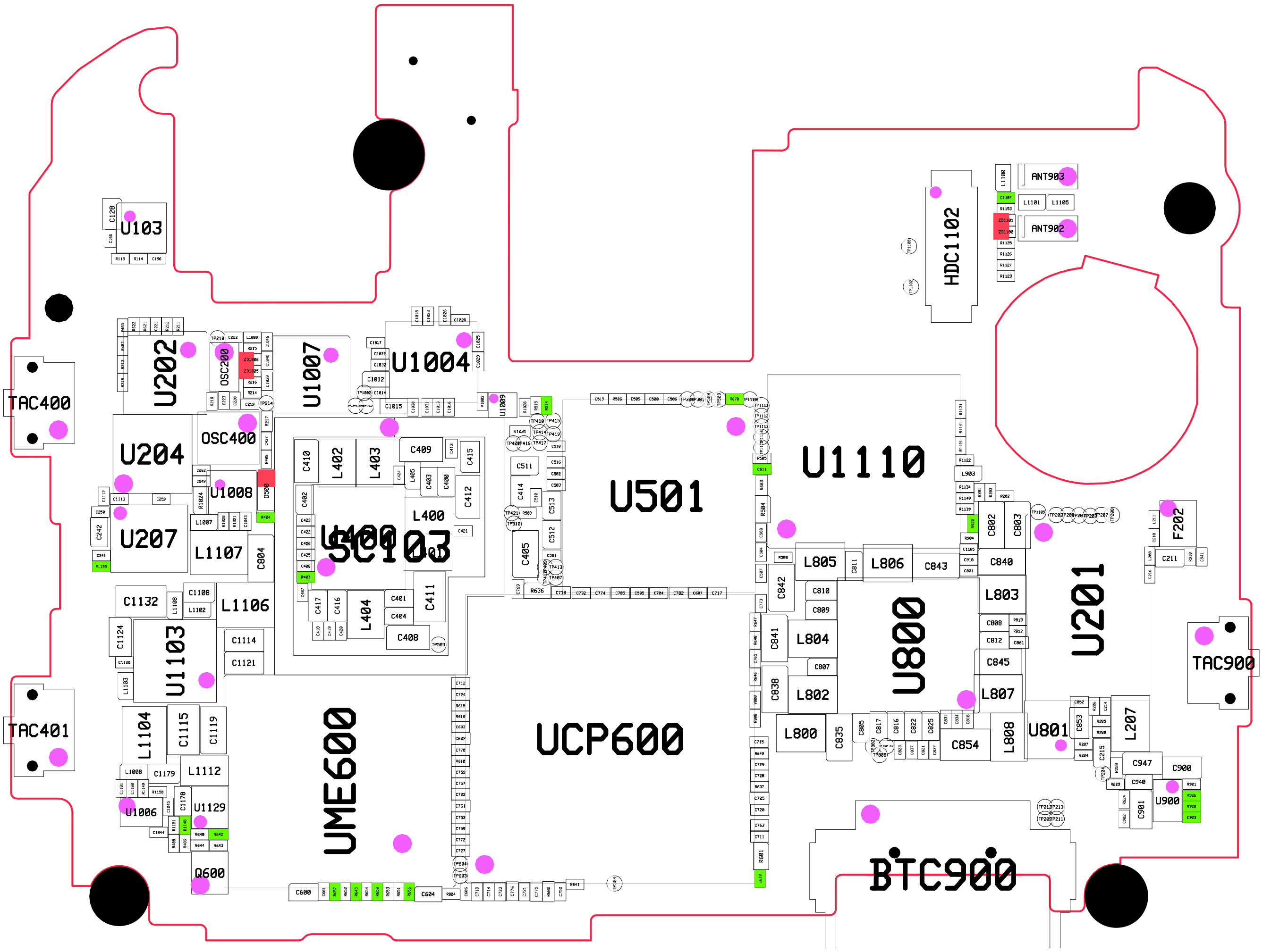
8-2-2. Bottom



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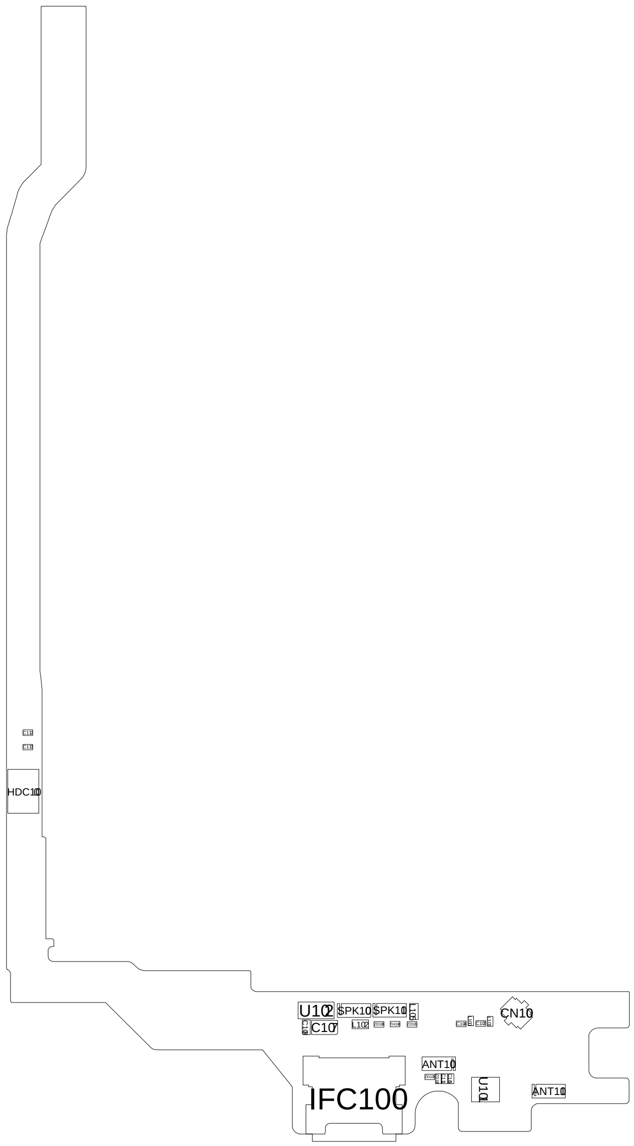
8-2-3. Sub PCB Top



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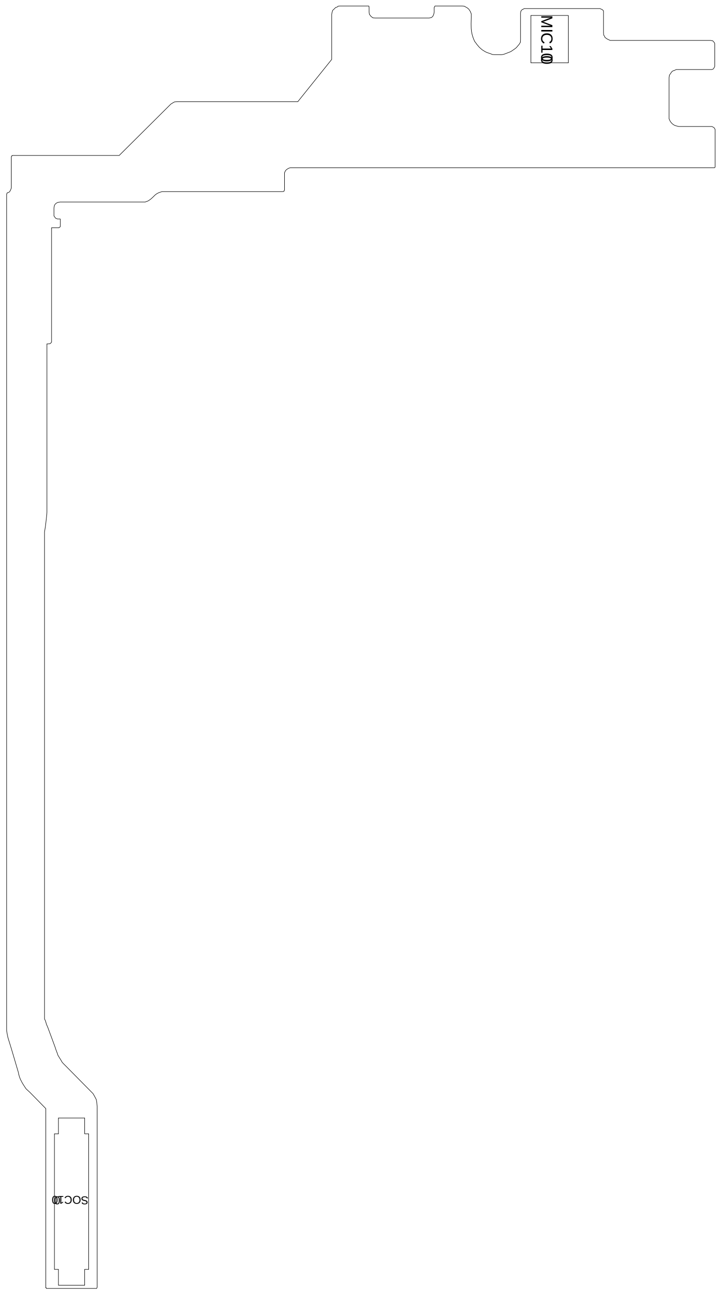
8-2-4. Sub PCB Bottom



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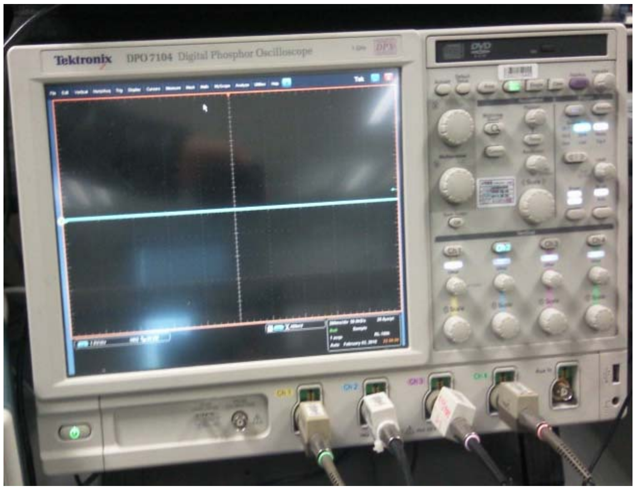
8-3. Flow Chart of Troubleshooting

Equipments

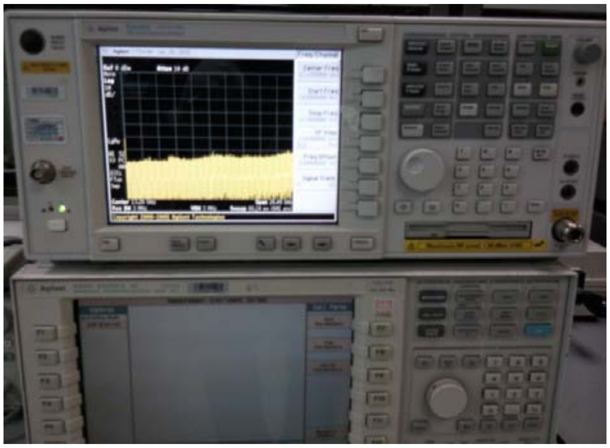


↑ Oscilloscope

↑ Digital Multimeter

↑ Power Supply

↑ + driver, ESD Safe Tweezer



↑ 8960 & Spectrum Analyzer

↑ Soldering iron

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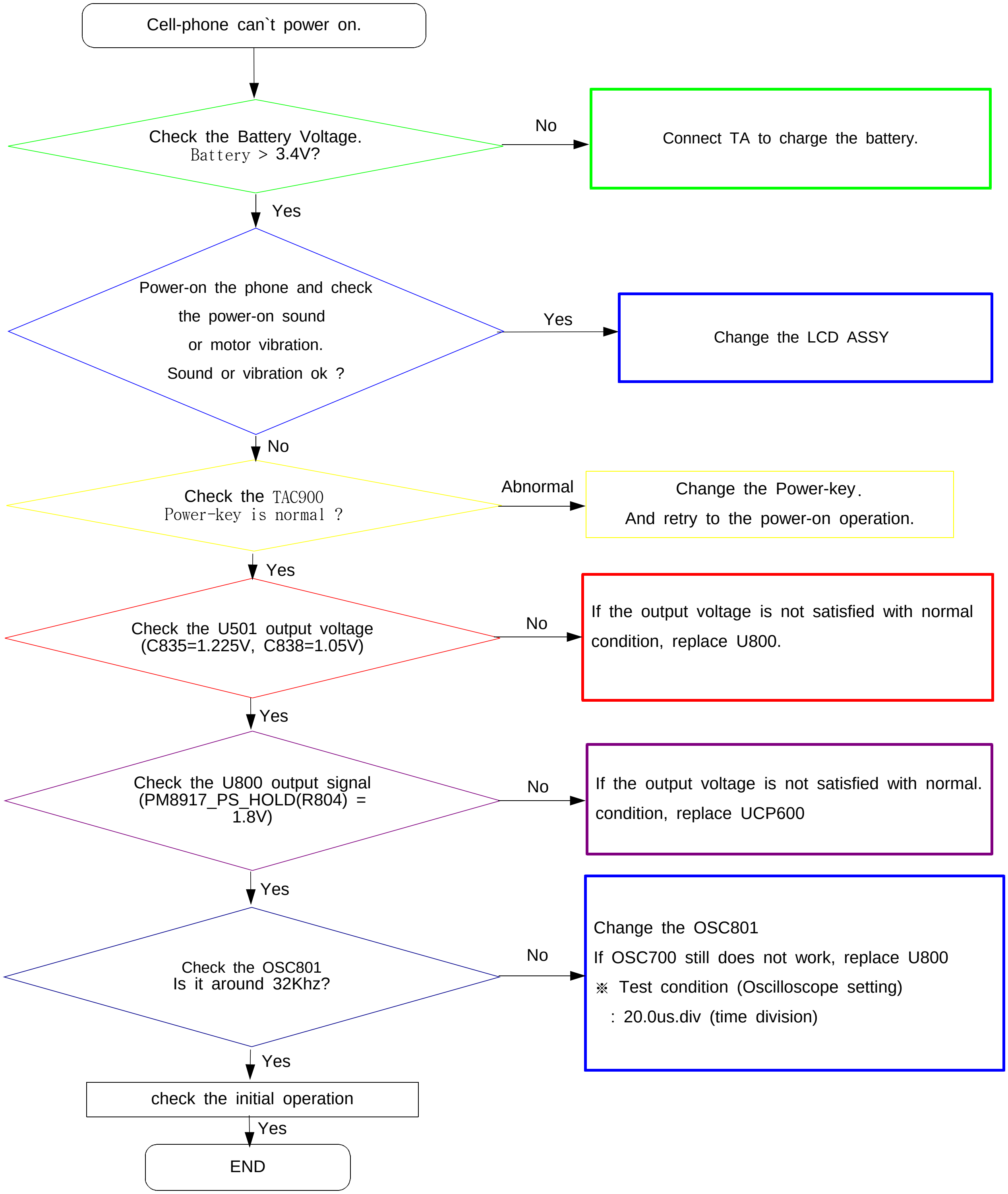
8-3-1. Power On



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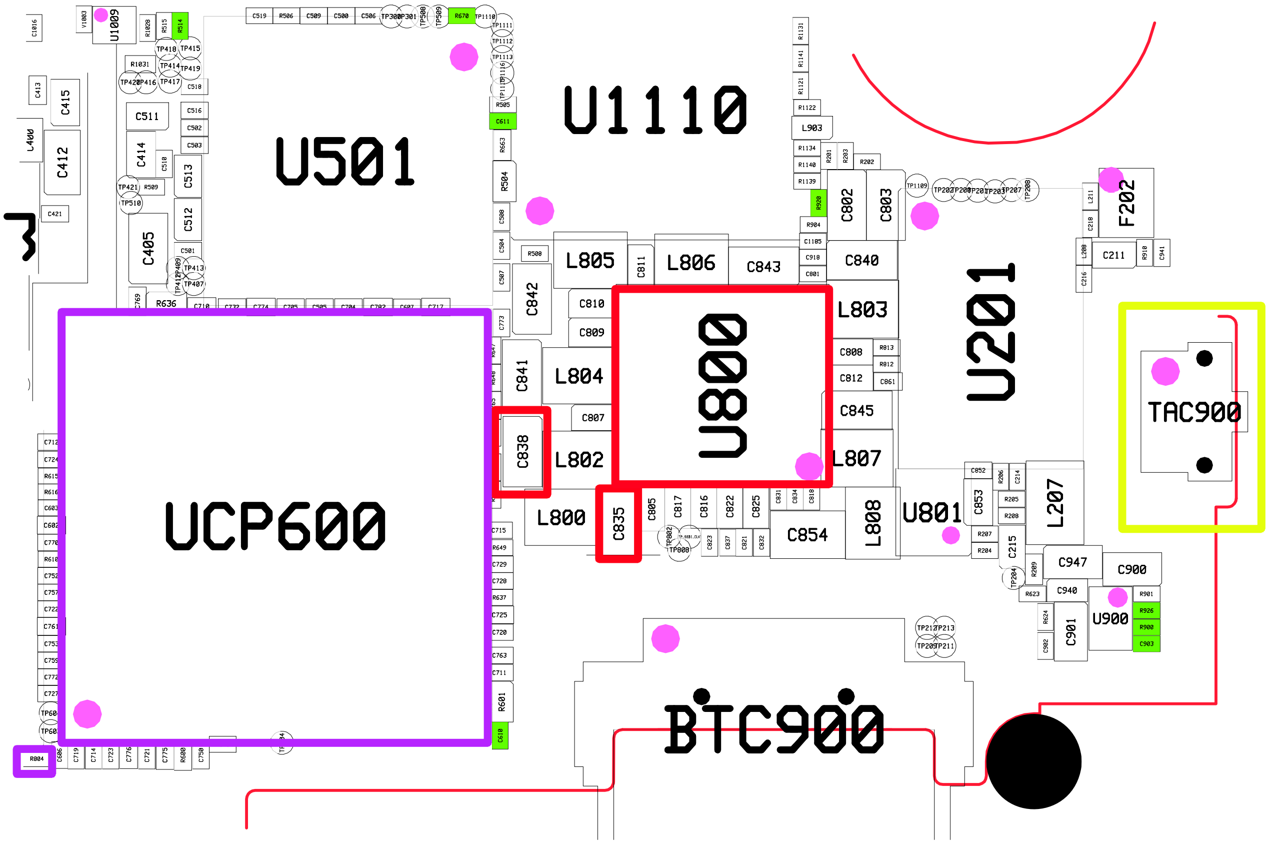

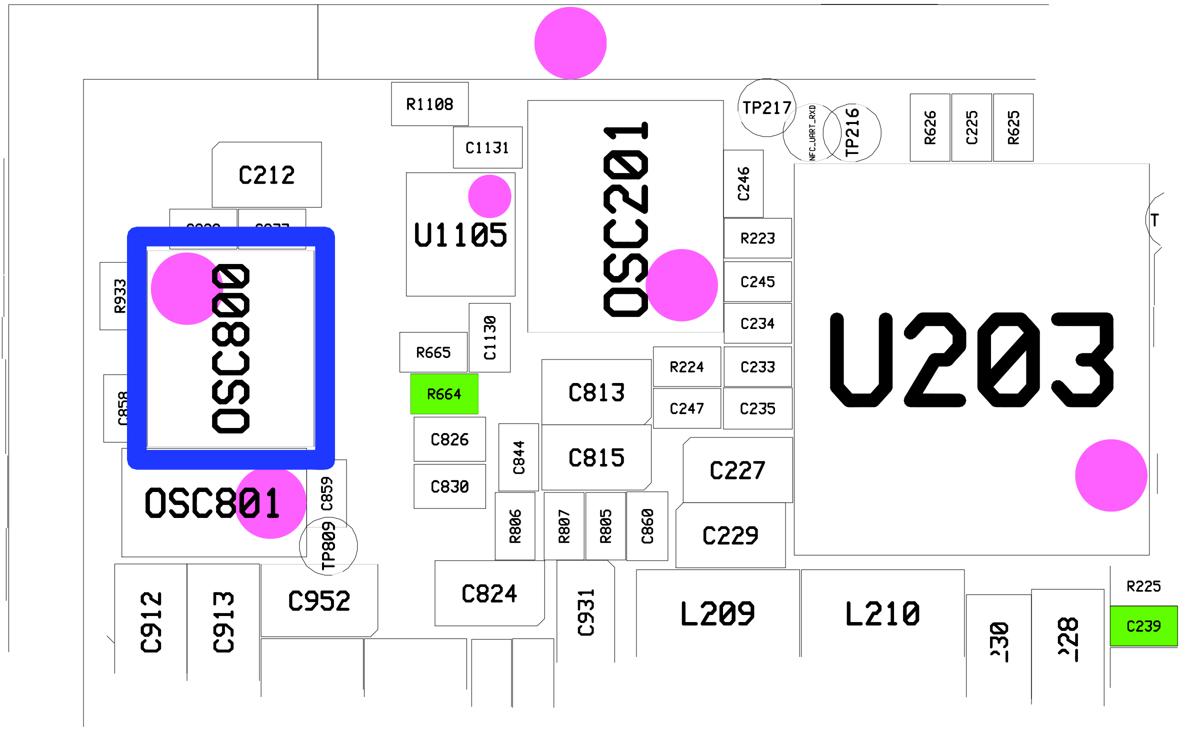

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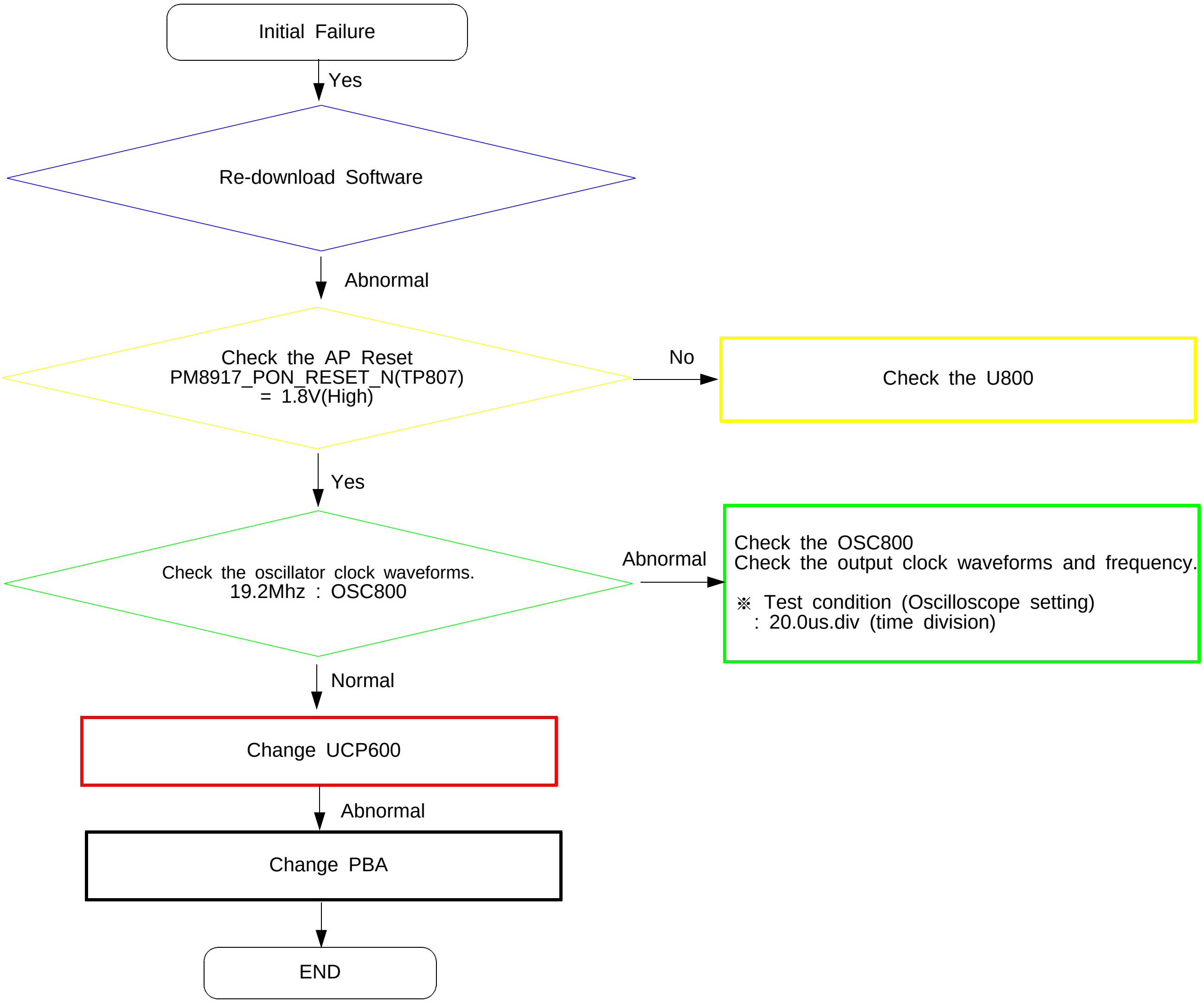
8-3-2. Initial



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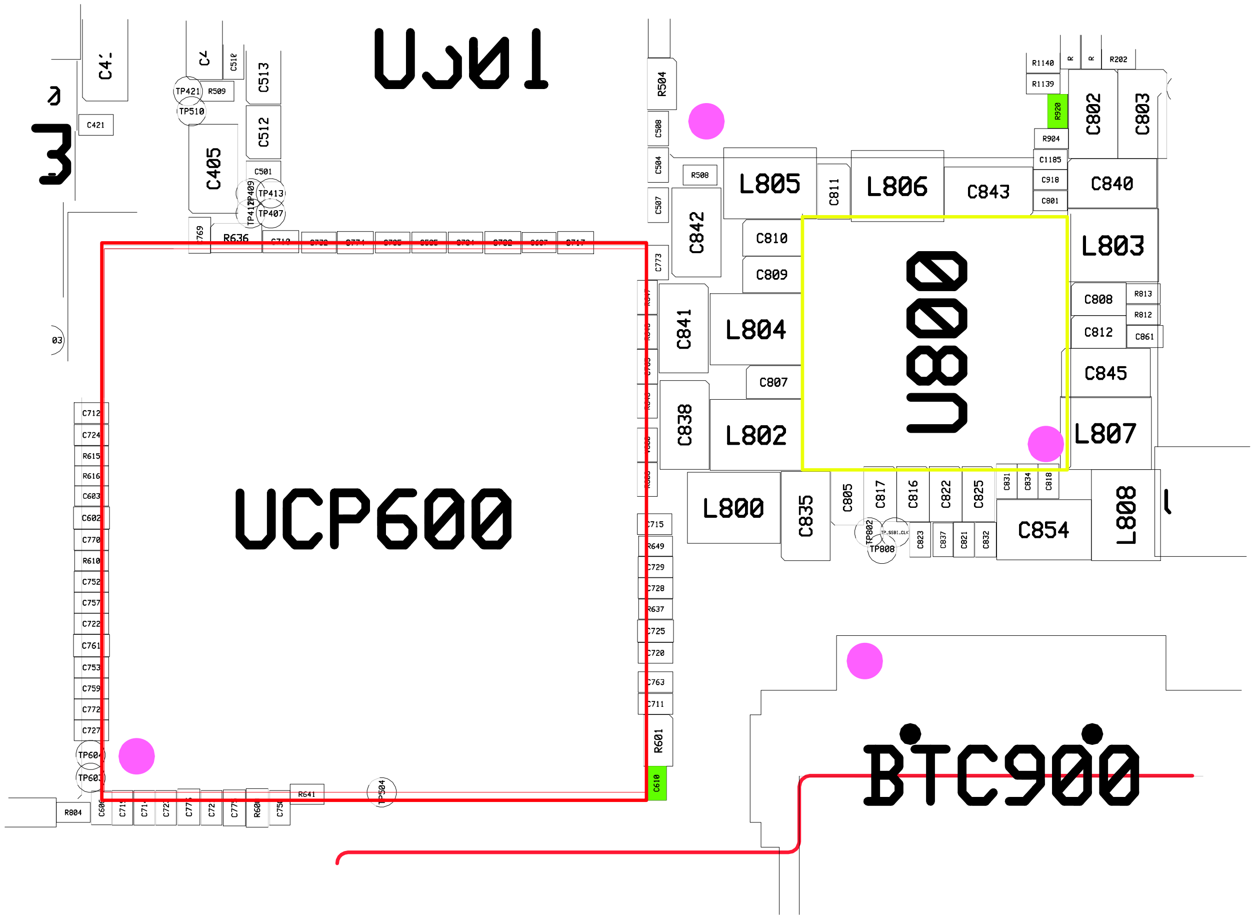

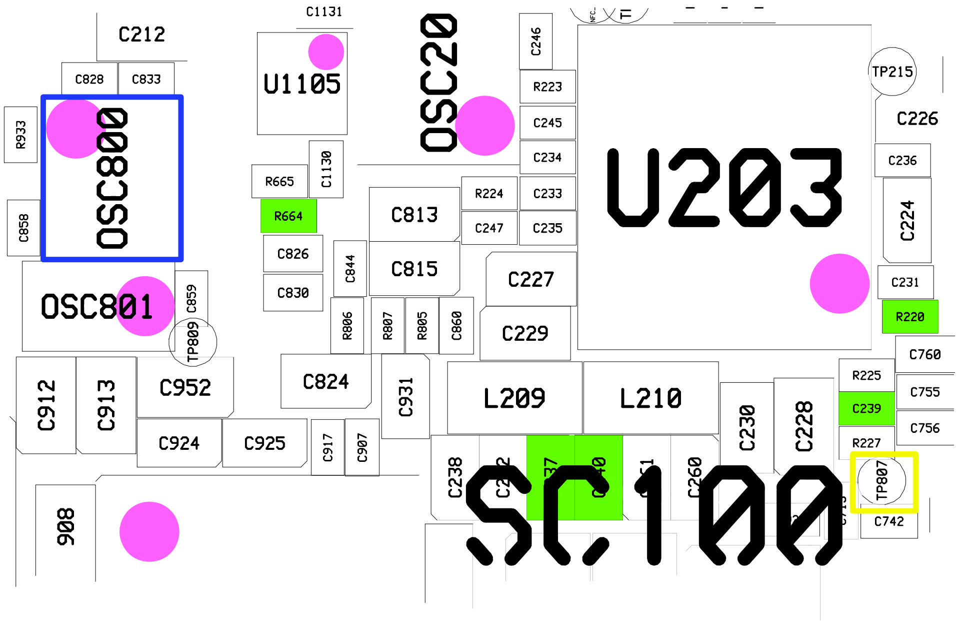

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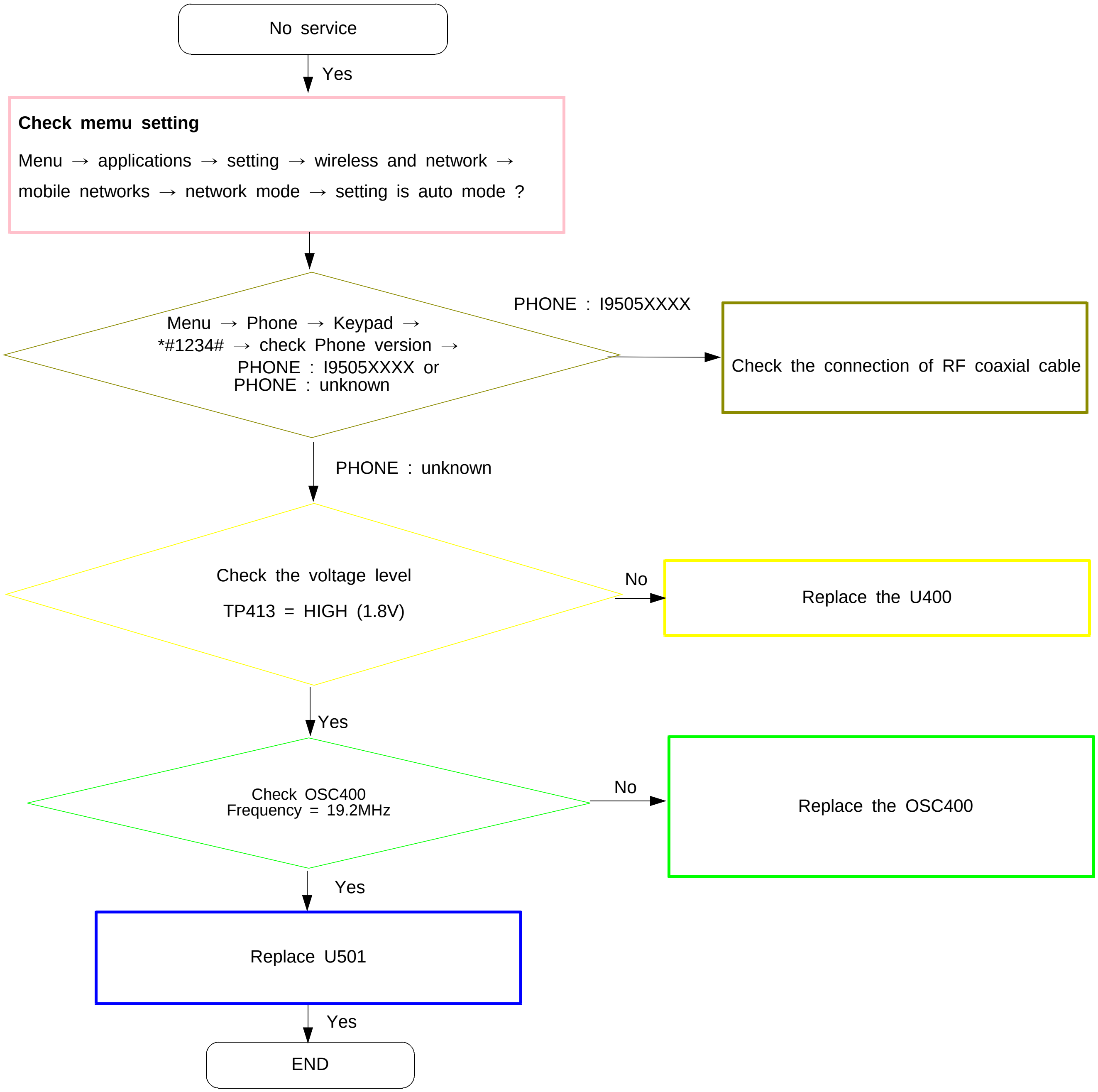
8-3-3. No Service



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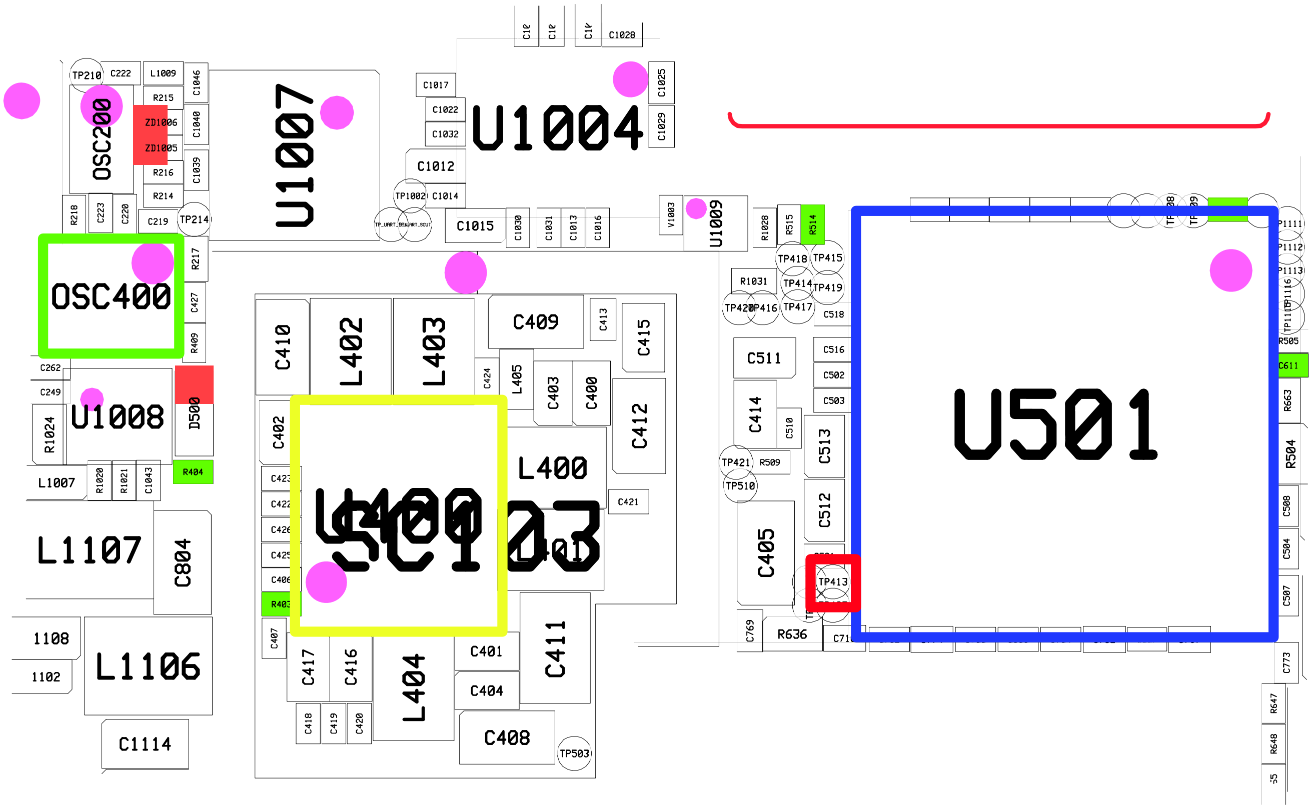

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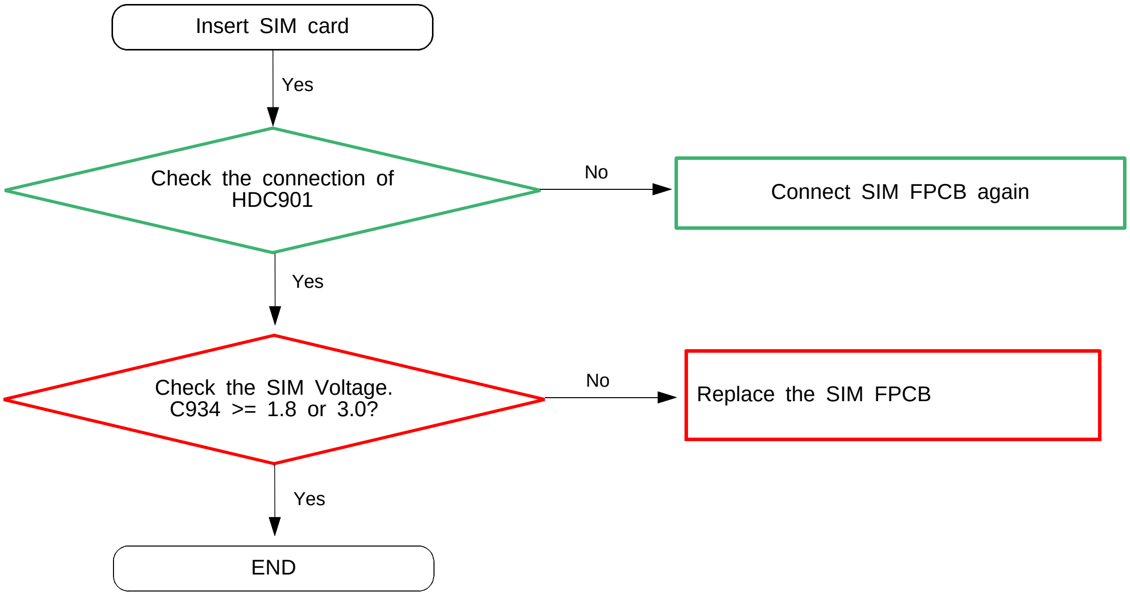
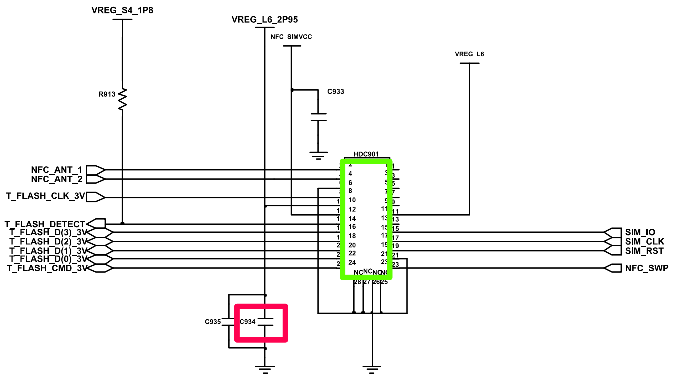
8-3-4. Sim Part





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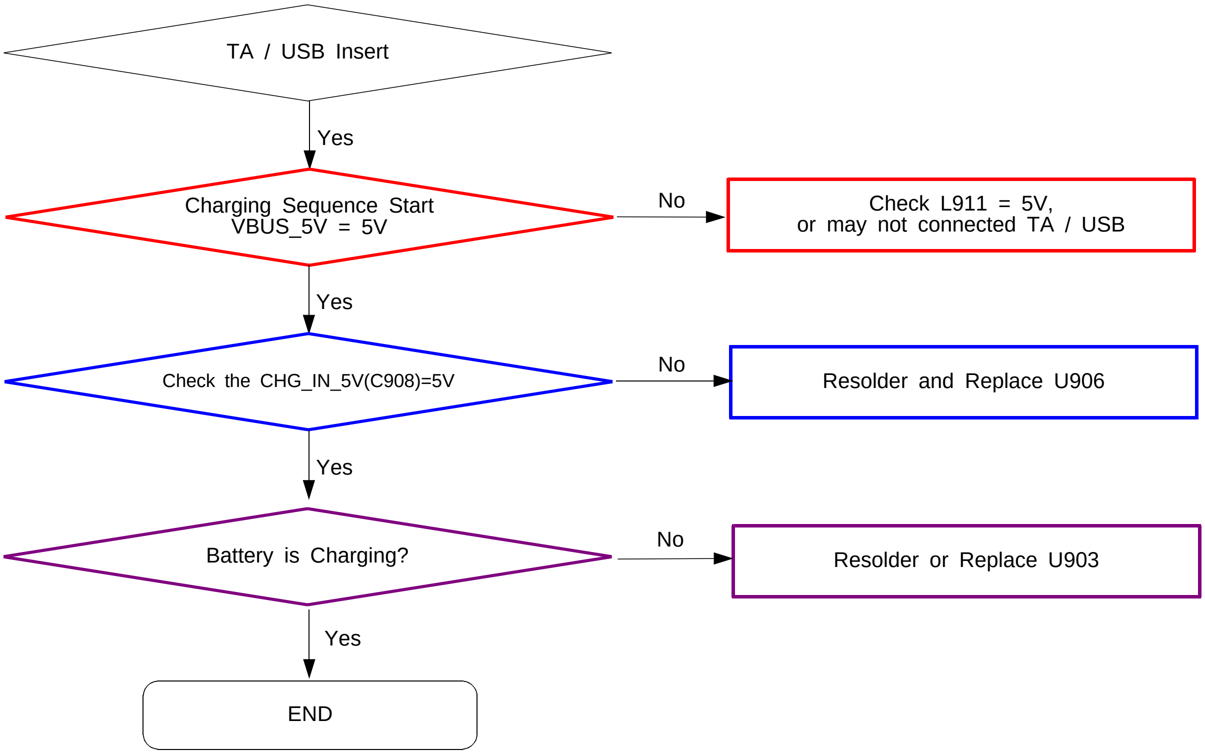
8-3-5. Charging Part



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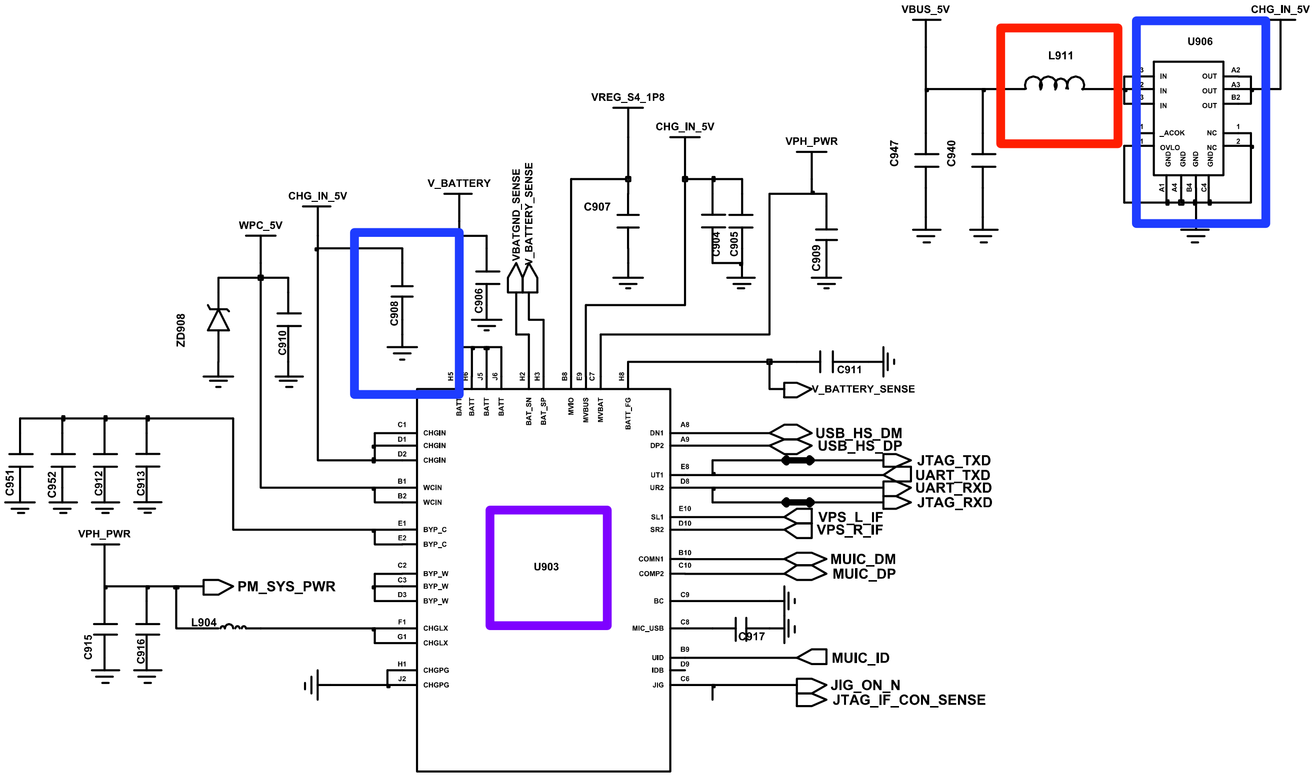

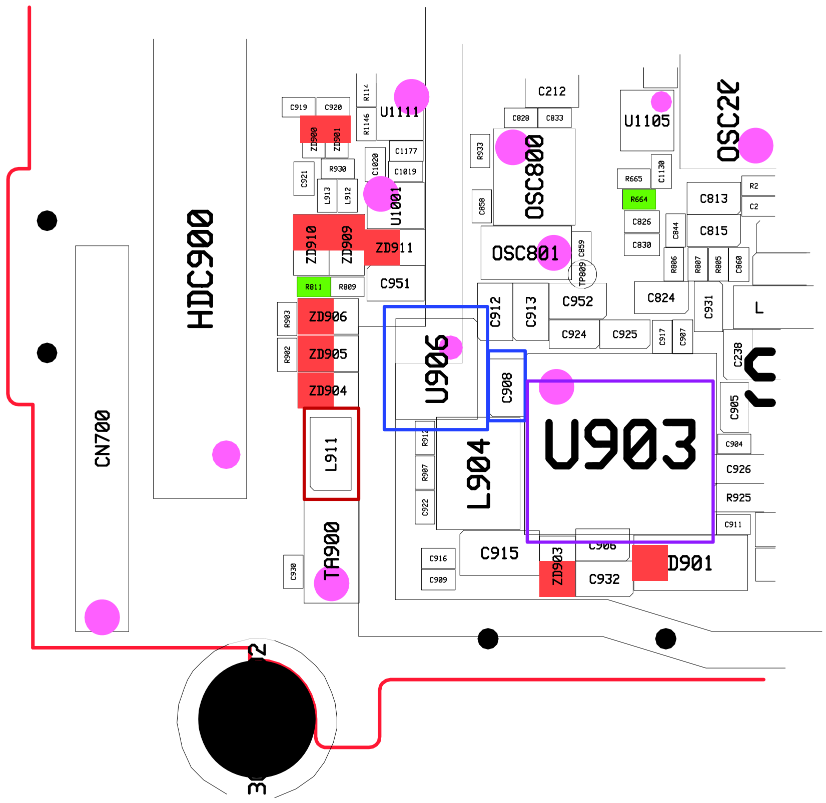

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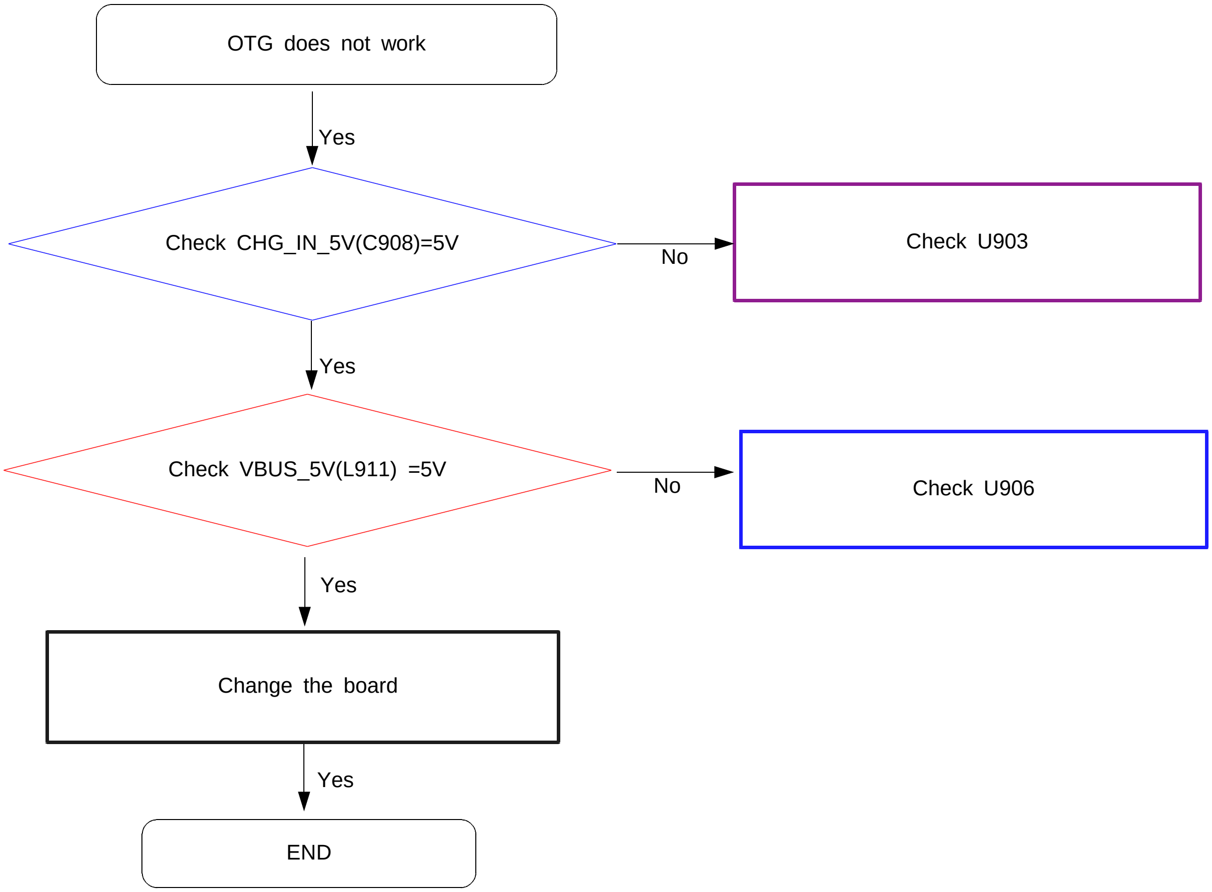
8-3-6. OTG



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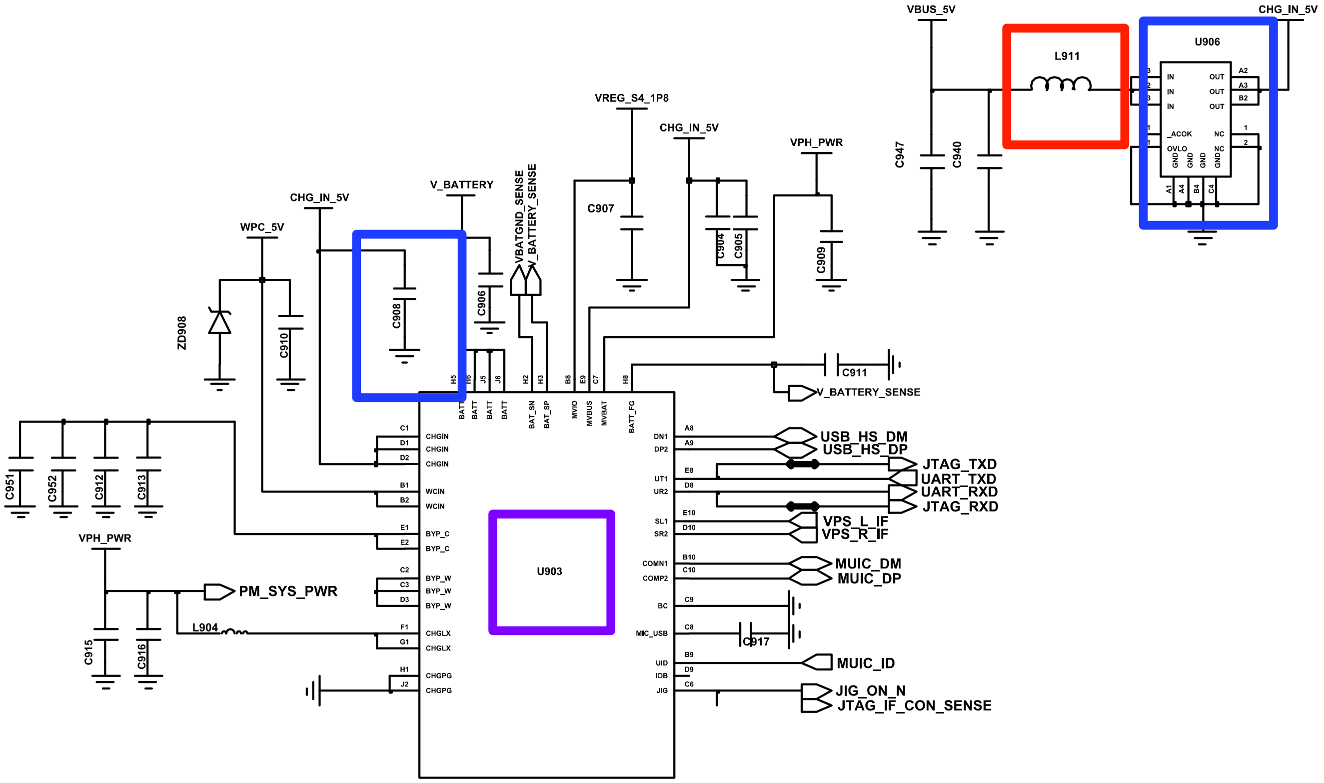

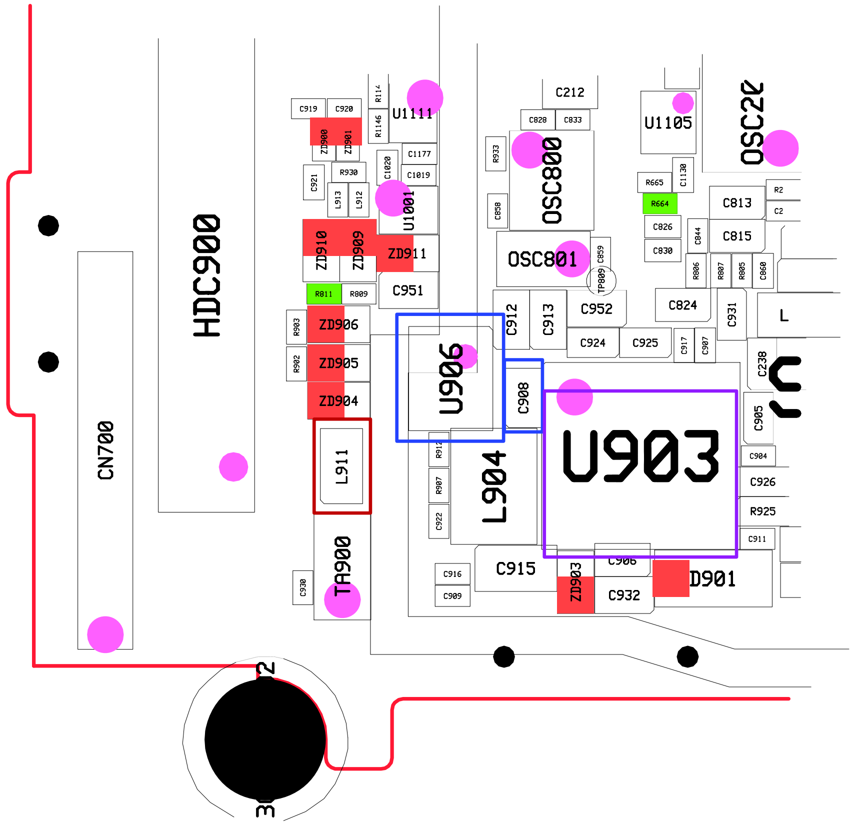

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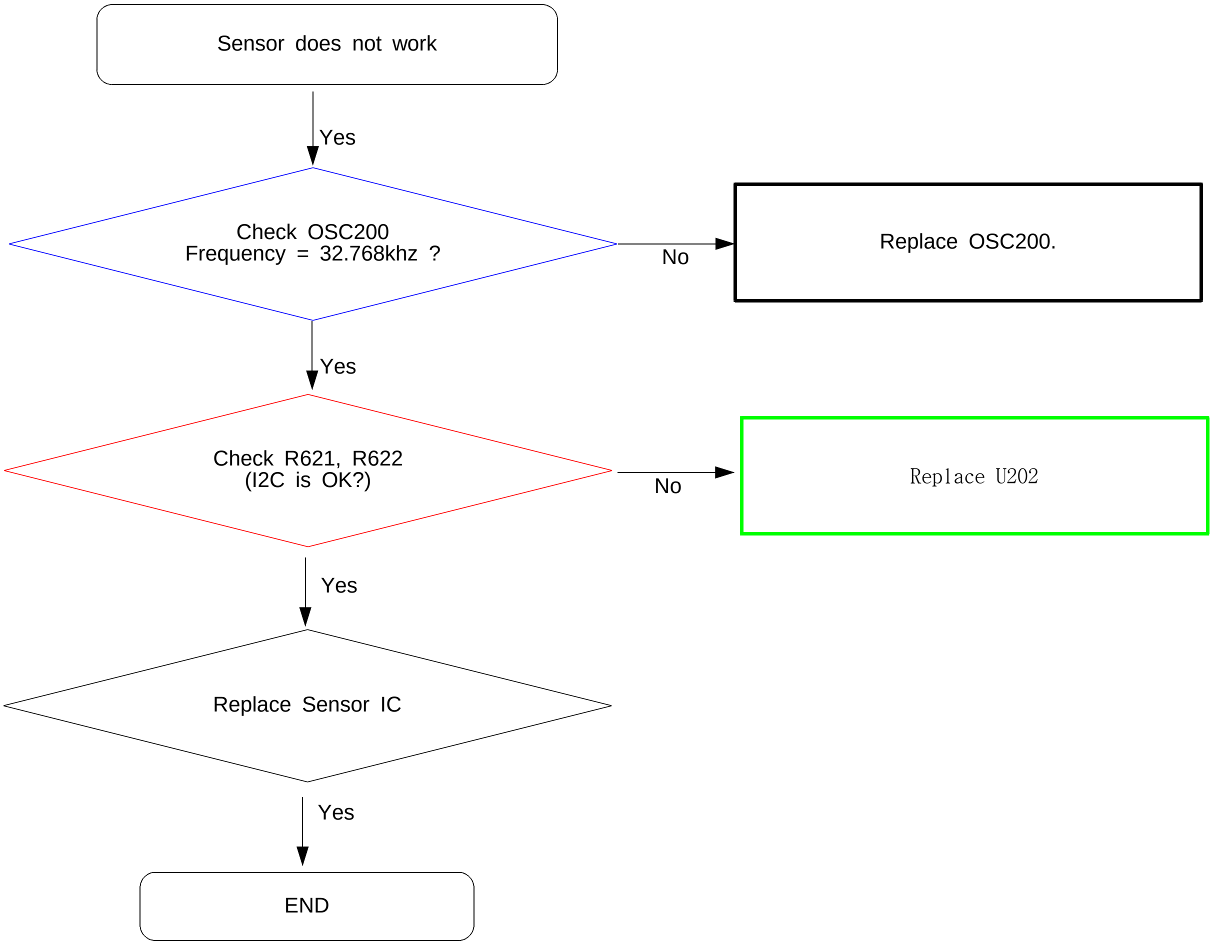
8-3-7. Sensor



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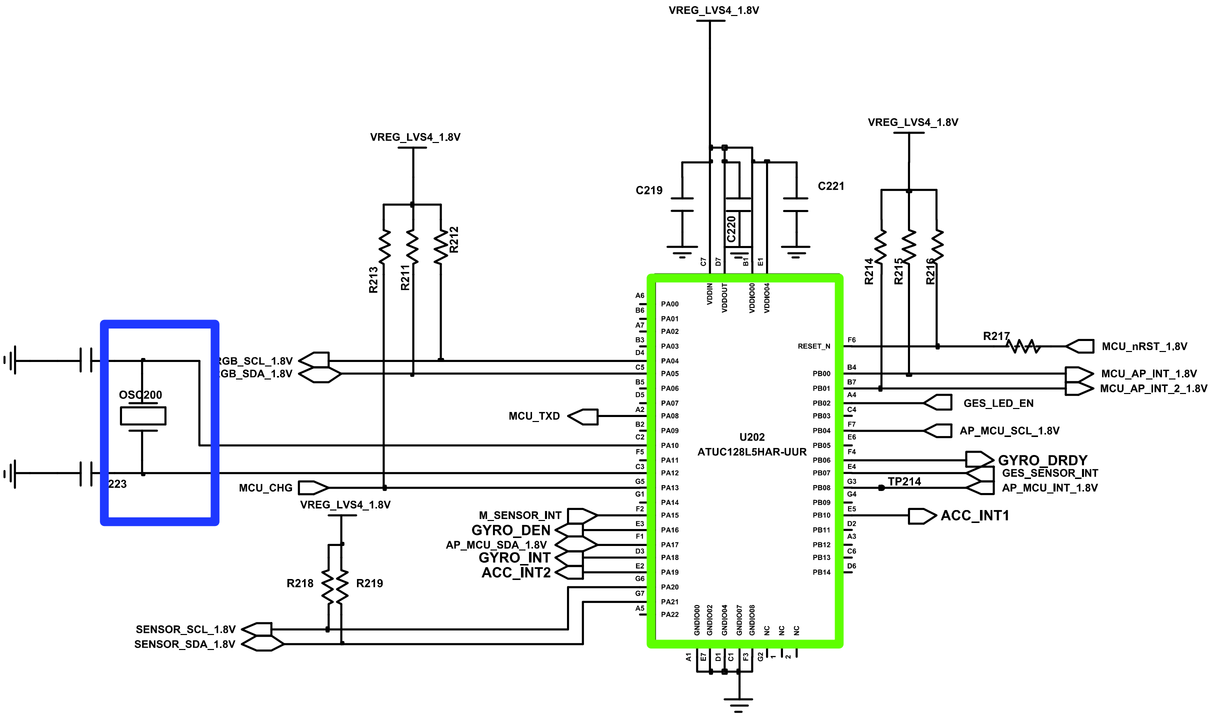

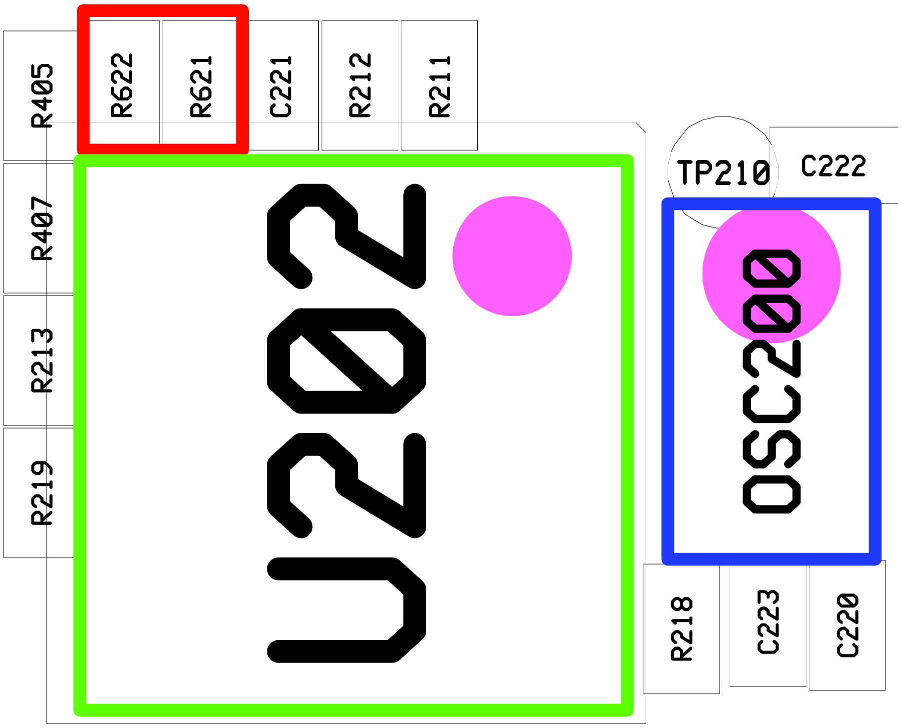

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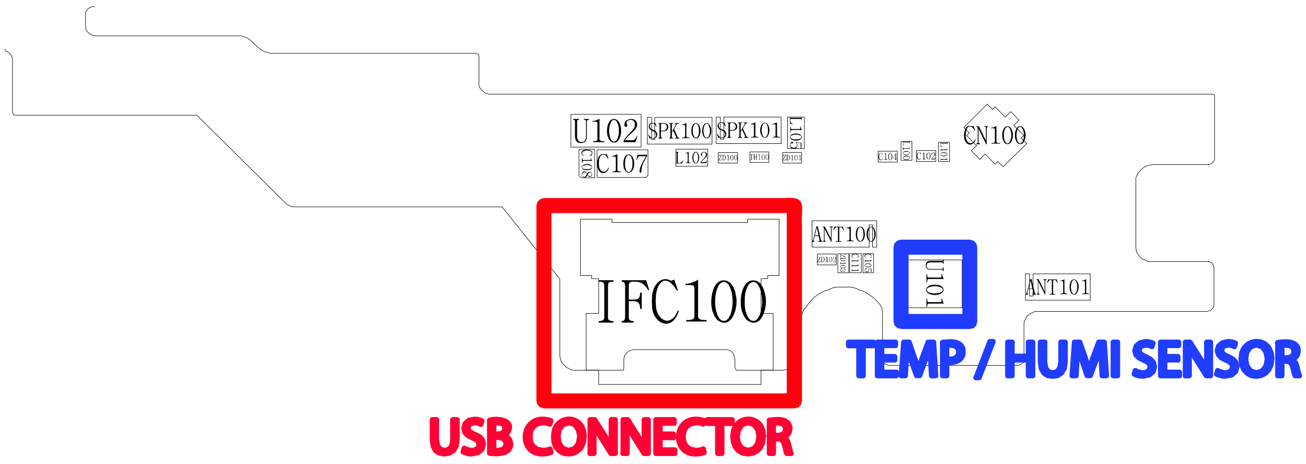
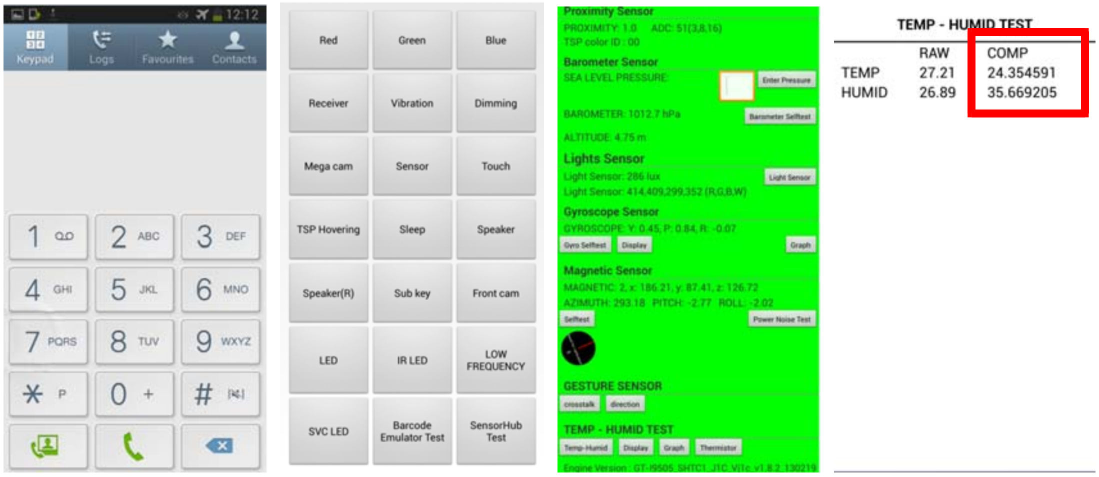
※ CAUTION

Temperature/Humidity sensor should not be directly exposed to the heat-gun when you replace USB connector, because excessive heat can cause abnormal operation of the sensor. The temperature that Temperature/Humidity sensor sees should not exceed 260°C. Use proper heat-shielding material to protect Temperature/Humidity sensor.



※ Temp/Humi Sensor After Repair

1) Keypad : press *#0*#
2) Select "Sensor"
3) Select "Temp-Humid"
4) Read the COMP data (ignore the RAW data)



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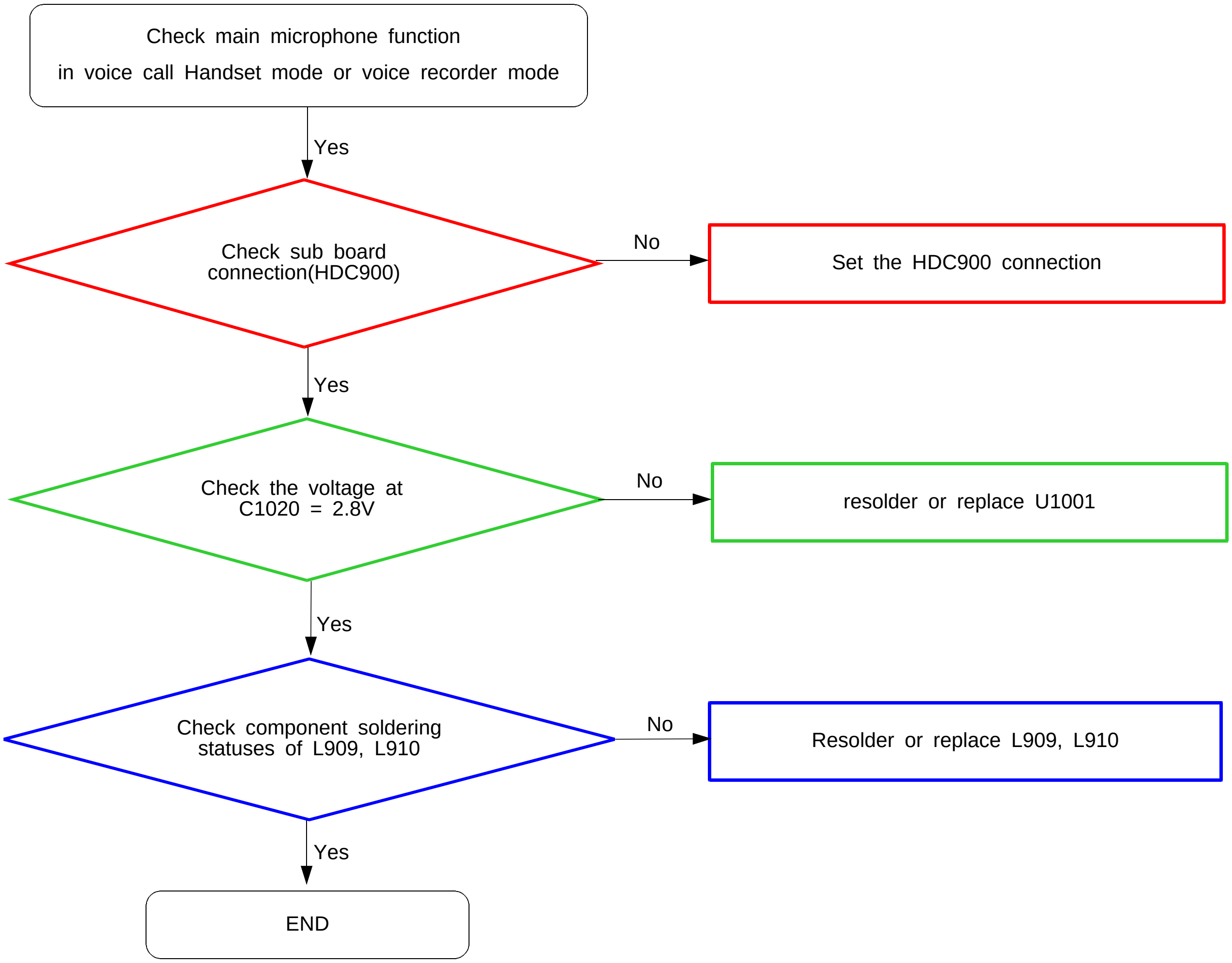
8-3-8-1 Microphone Part - Main MIC



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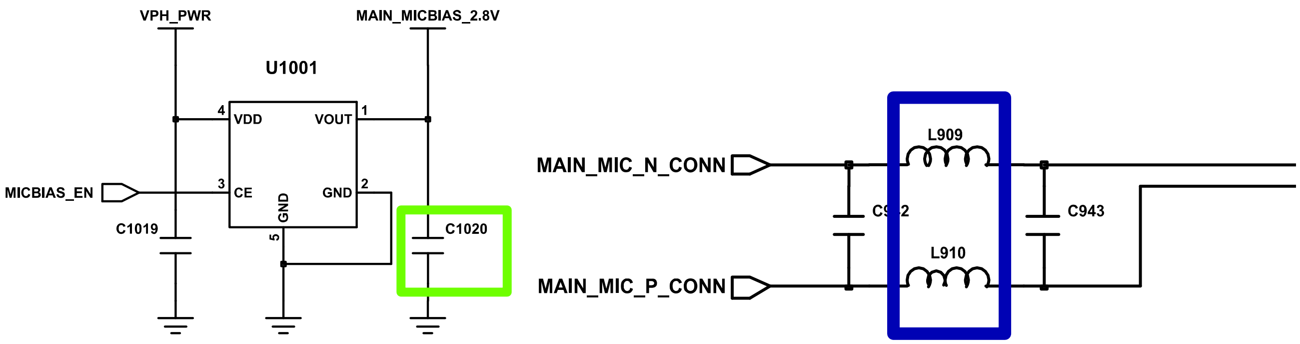

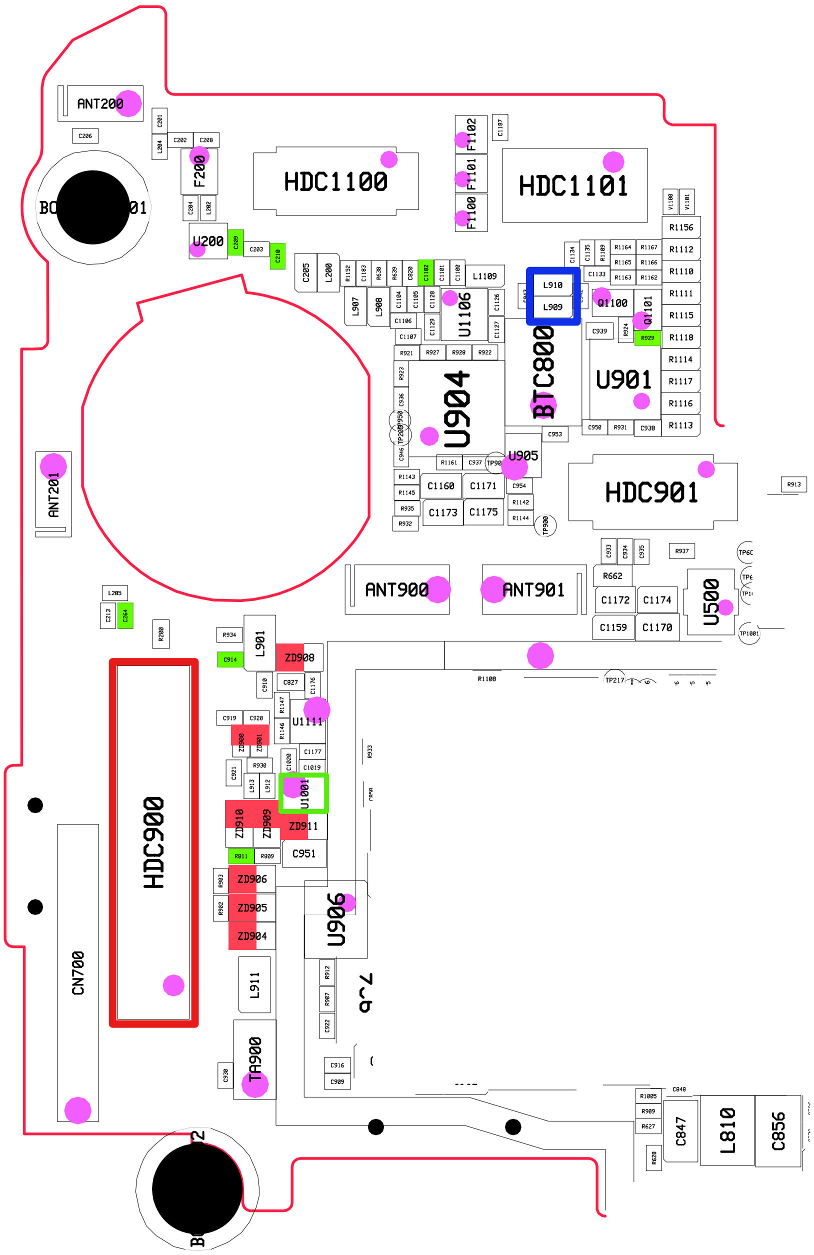

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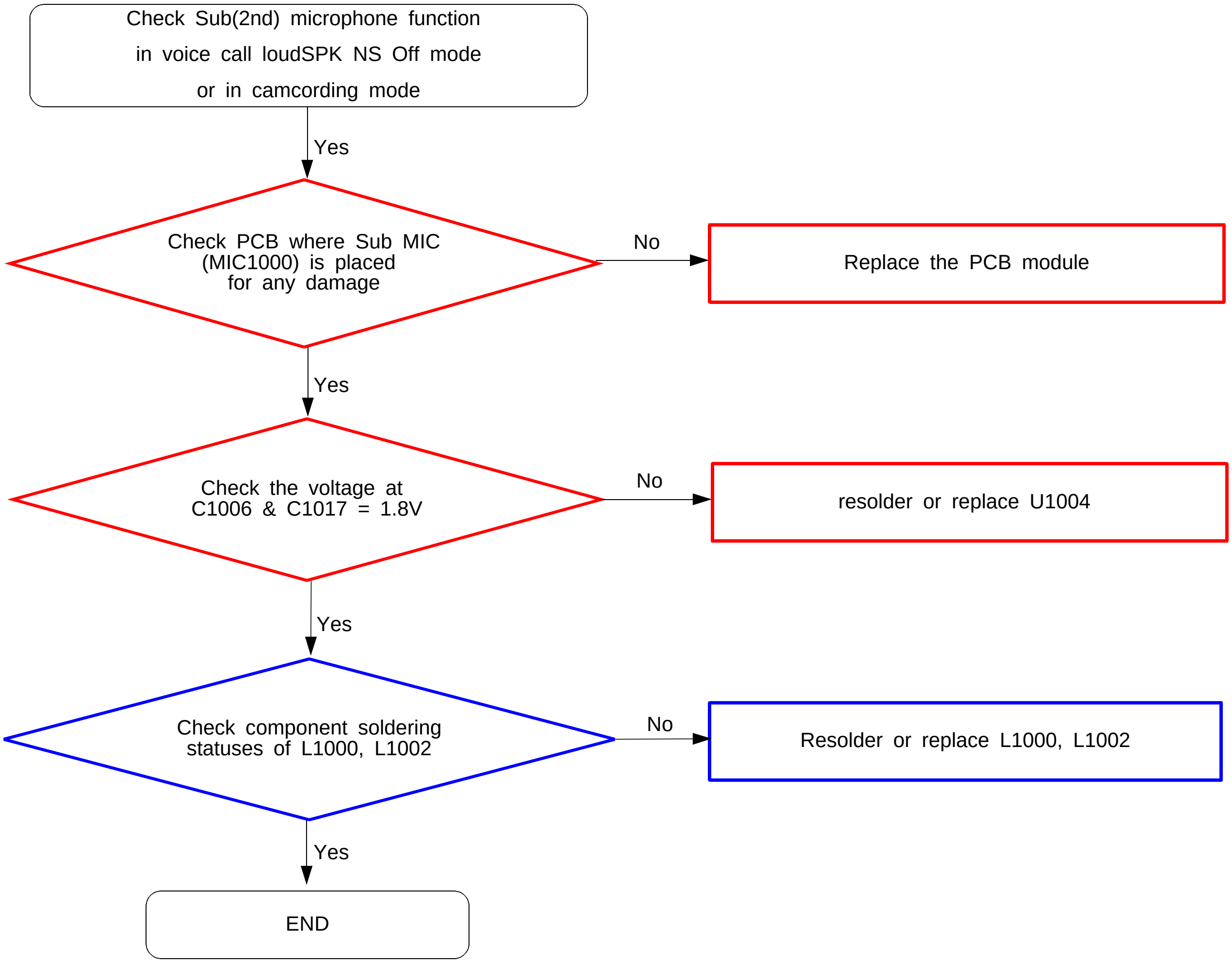
8-3-8-2. Microphone Part - Sub(2nd) MIC



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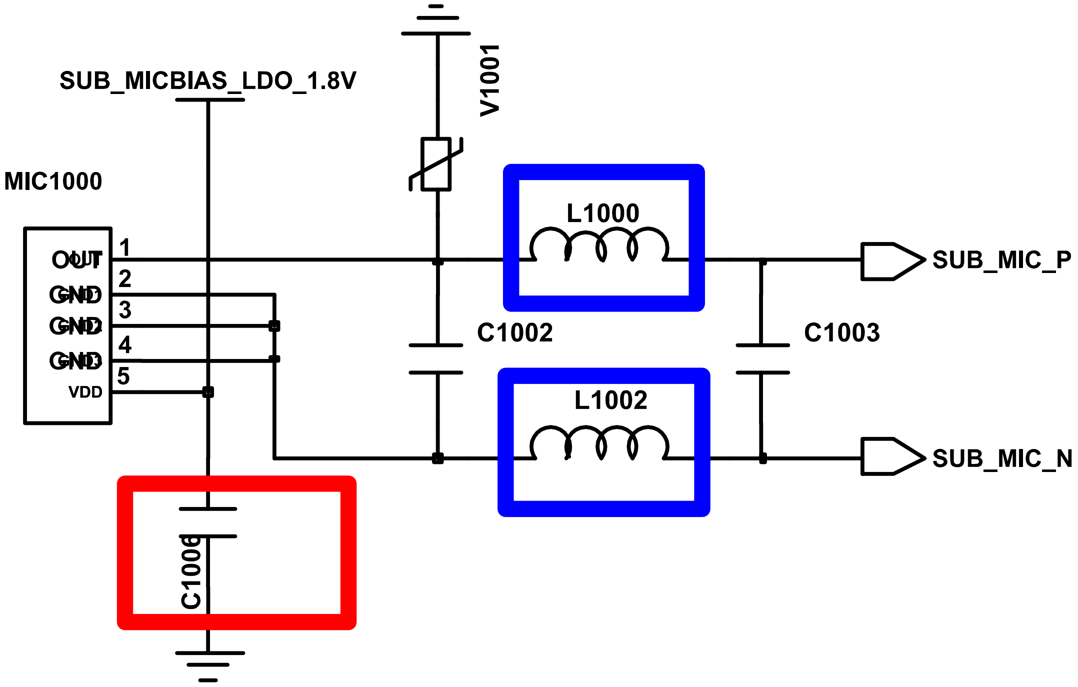

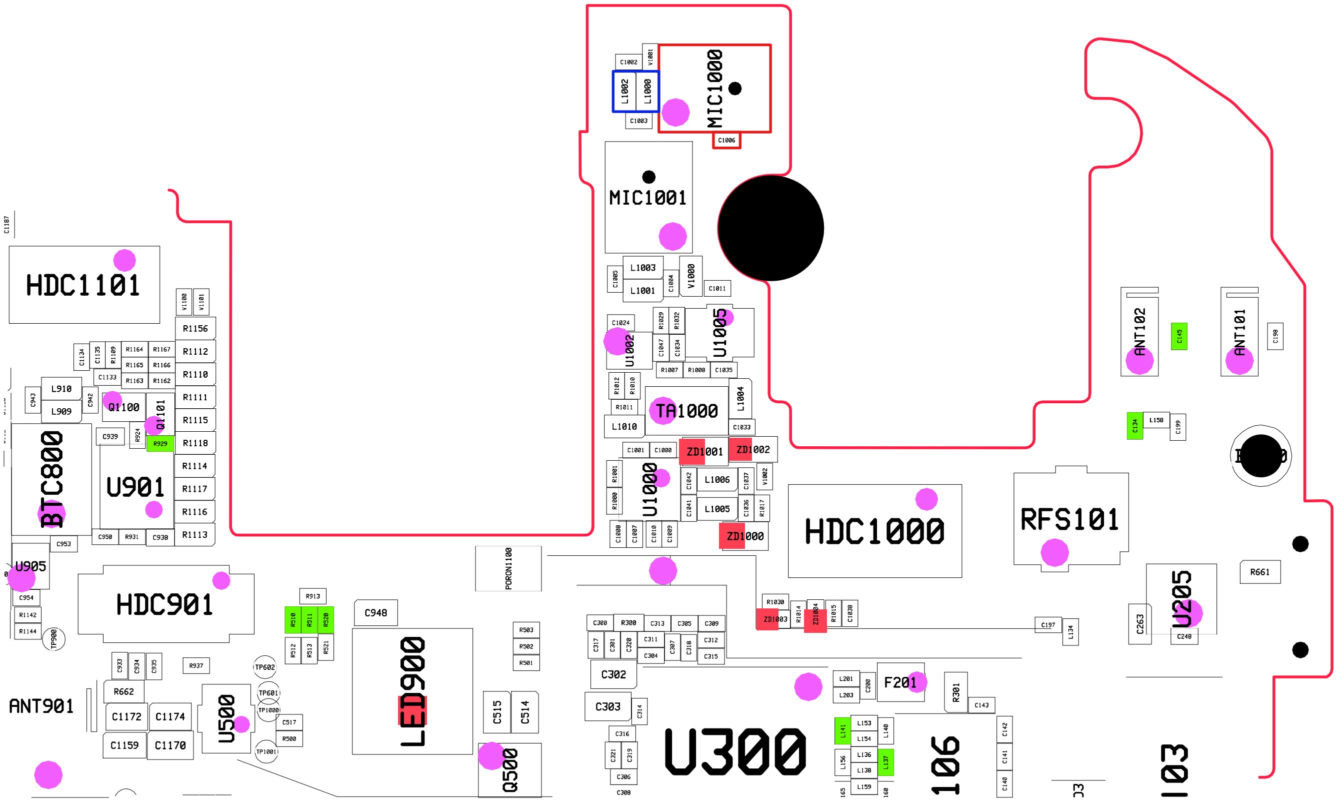

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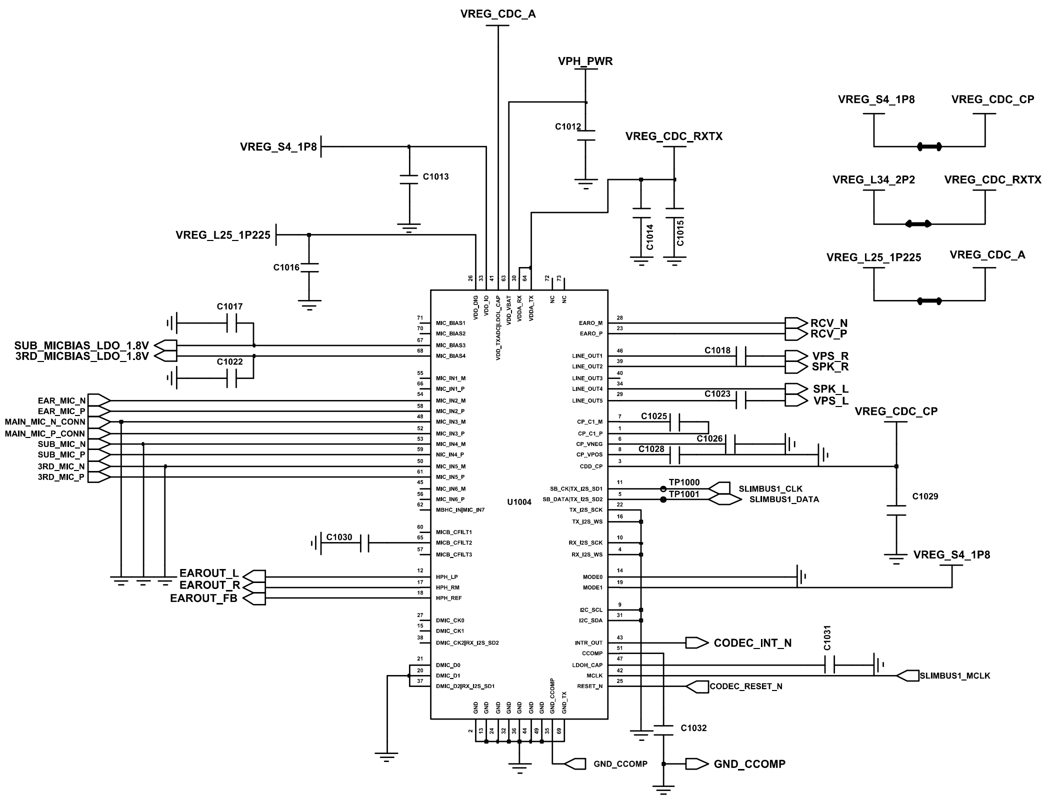
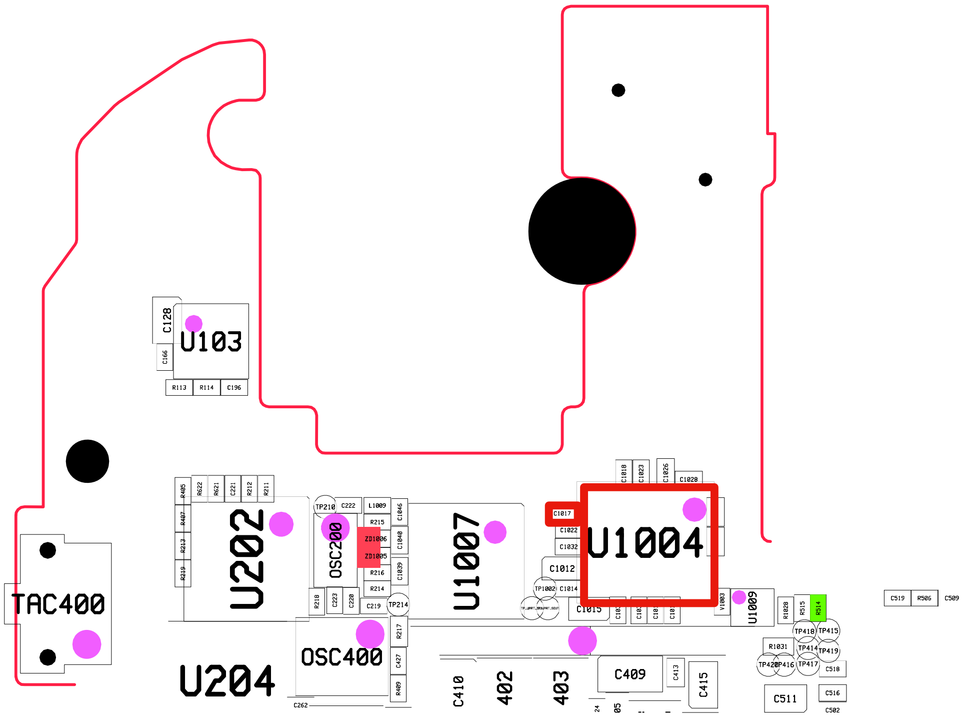


AUDIO CODEC



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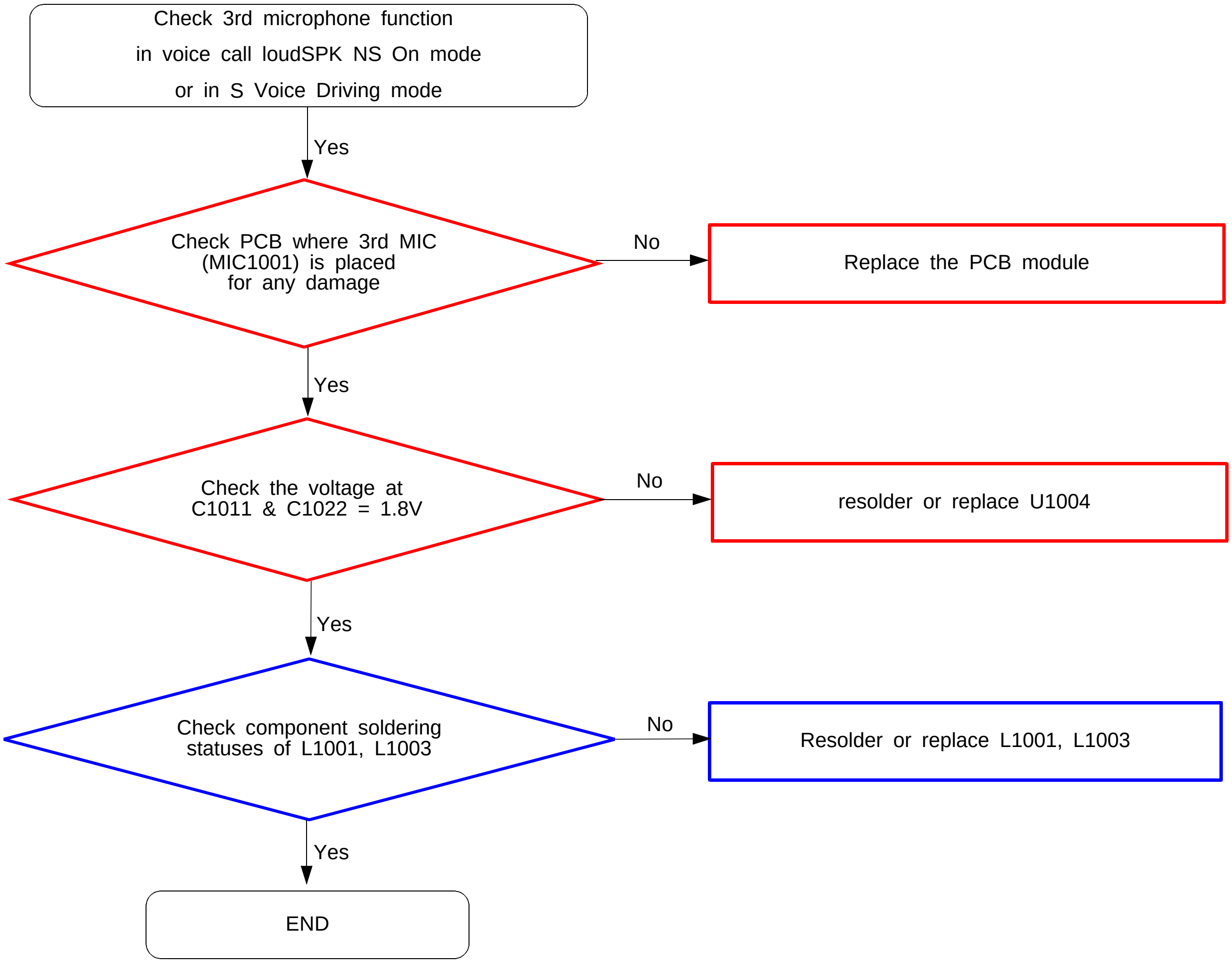
8-3-8-3. Microphone Part - 3rd MIC



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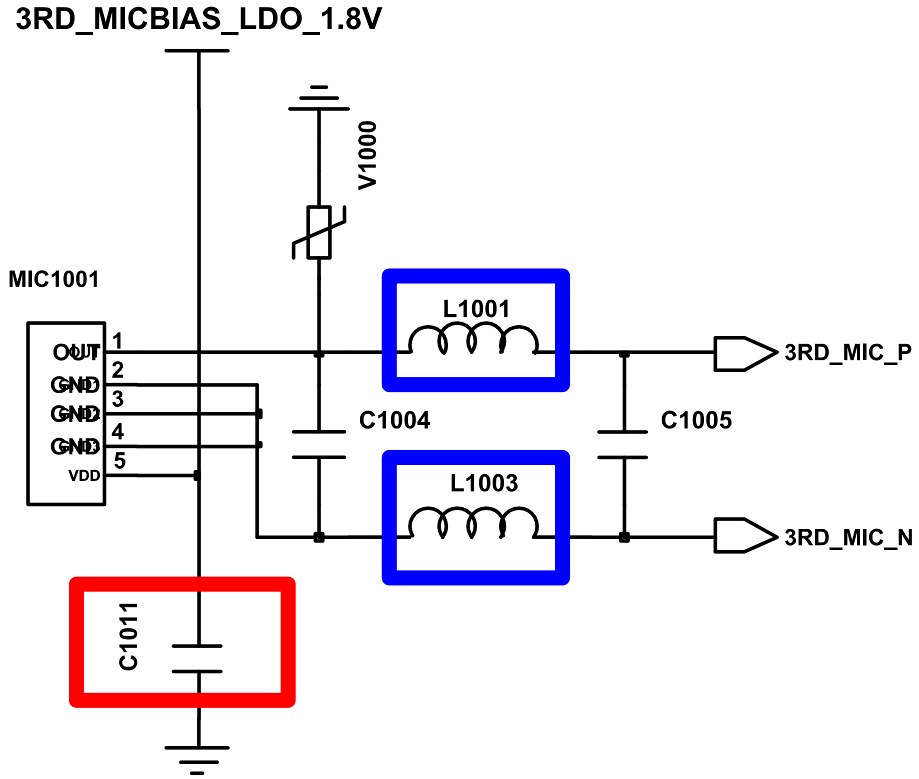

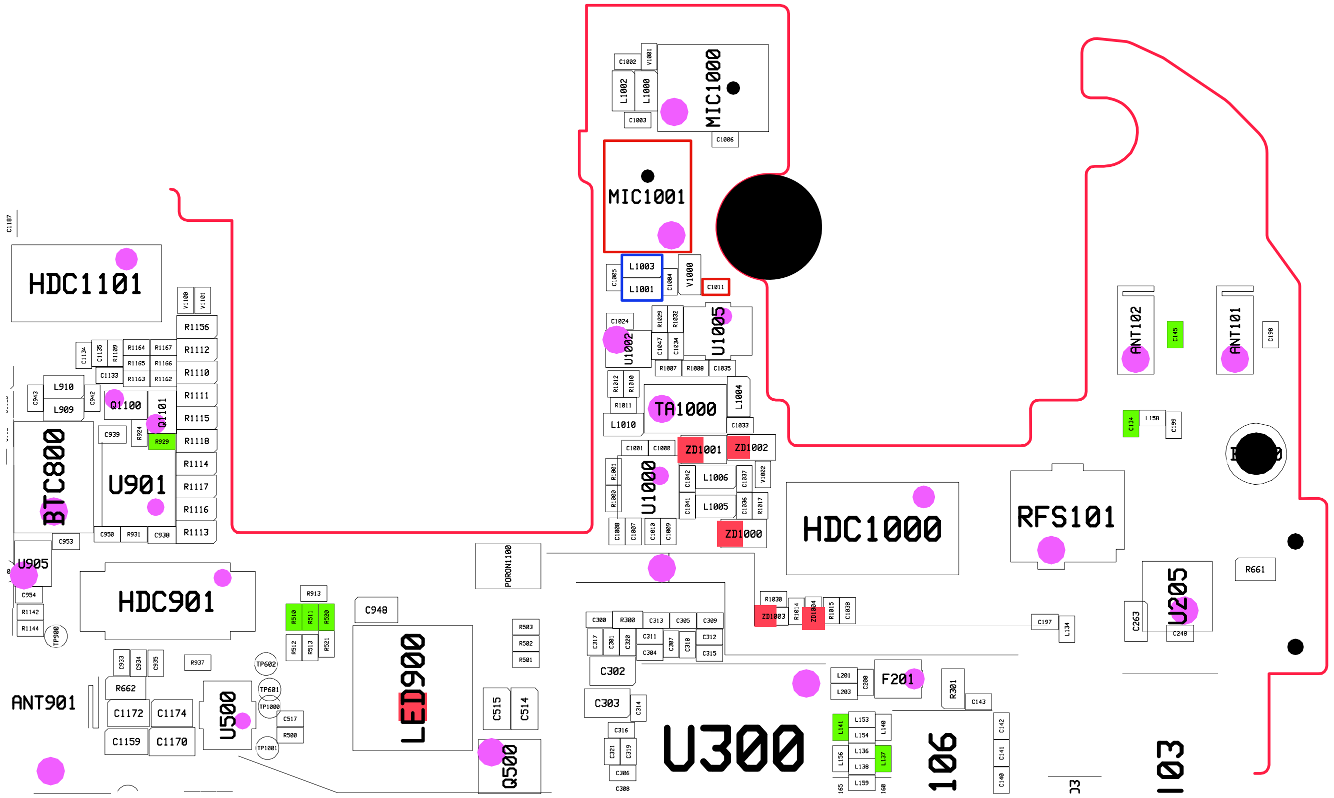

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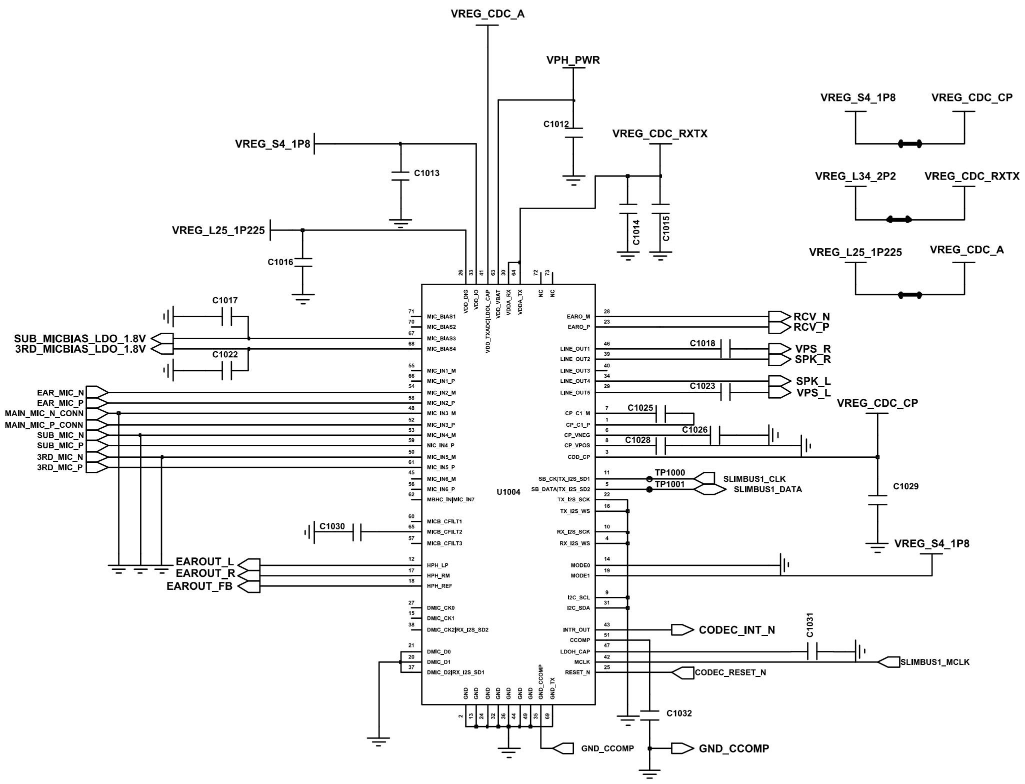

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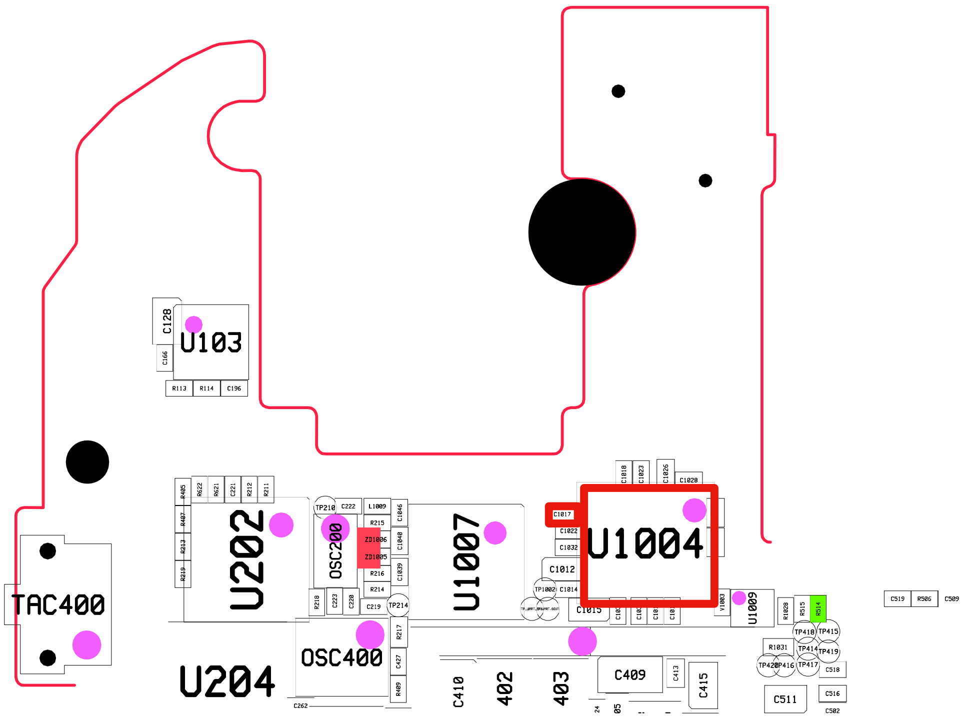

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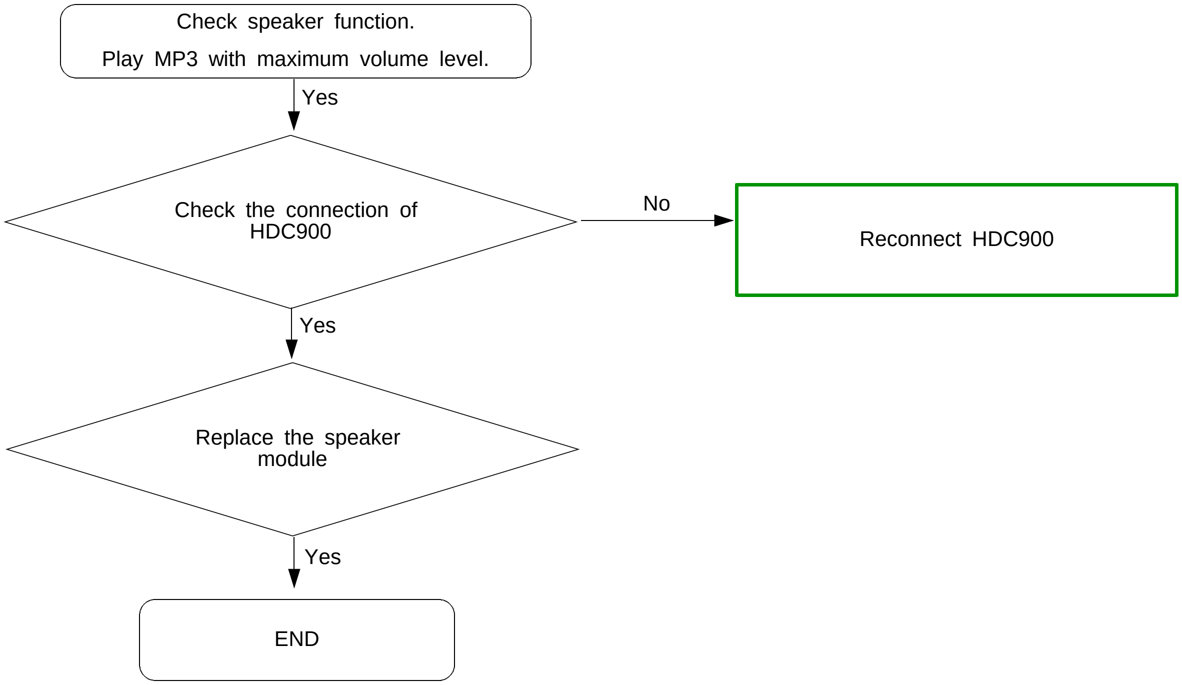
8-3-9. Speaker Part



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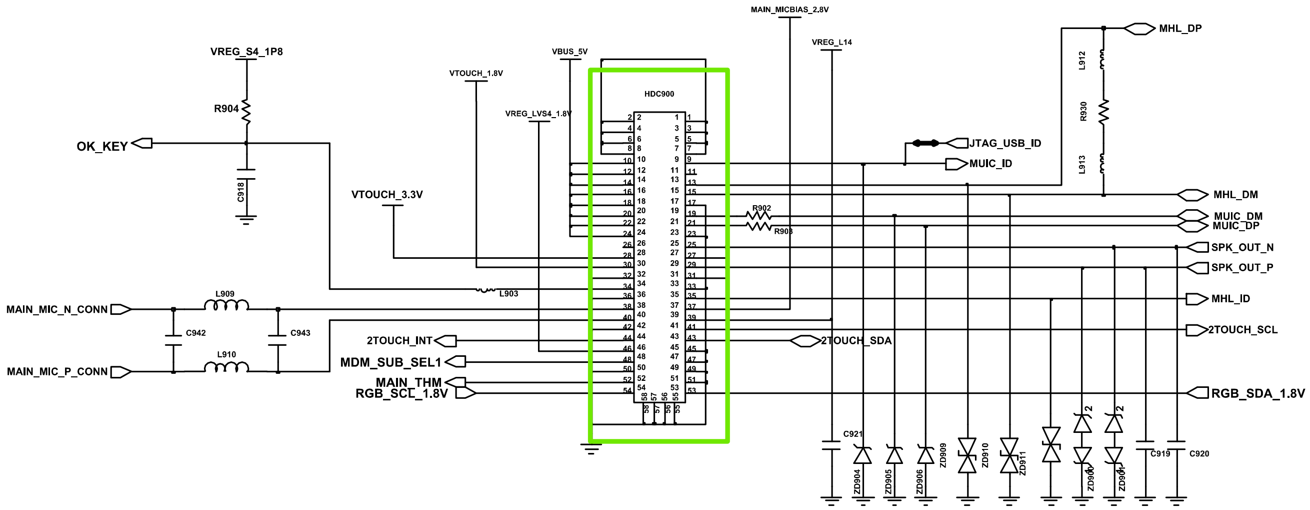

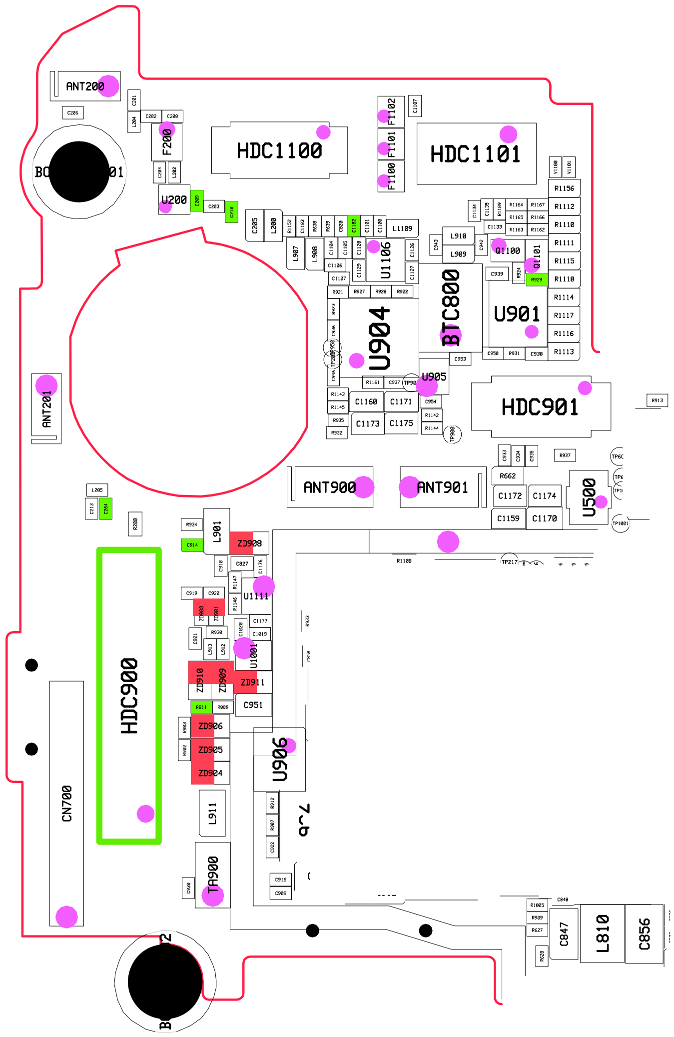

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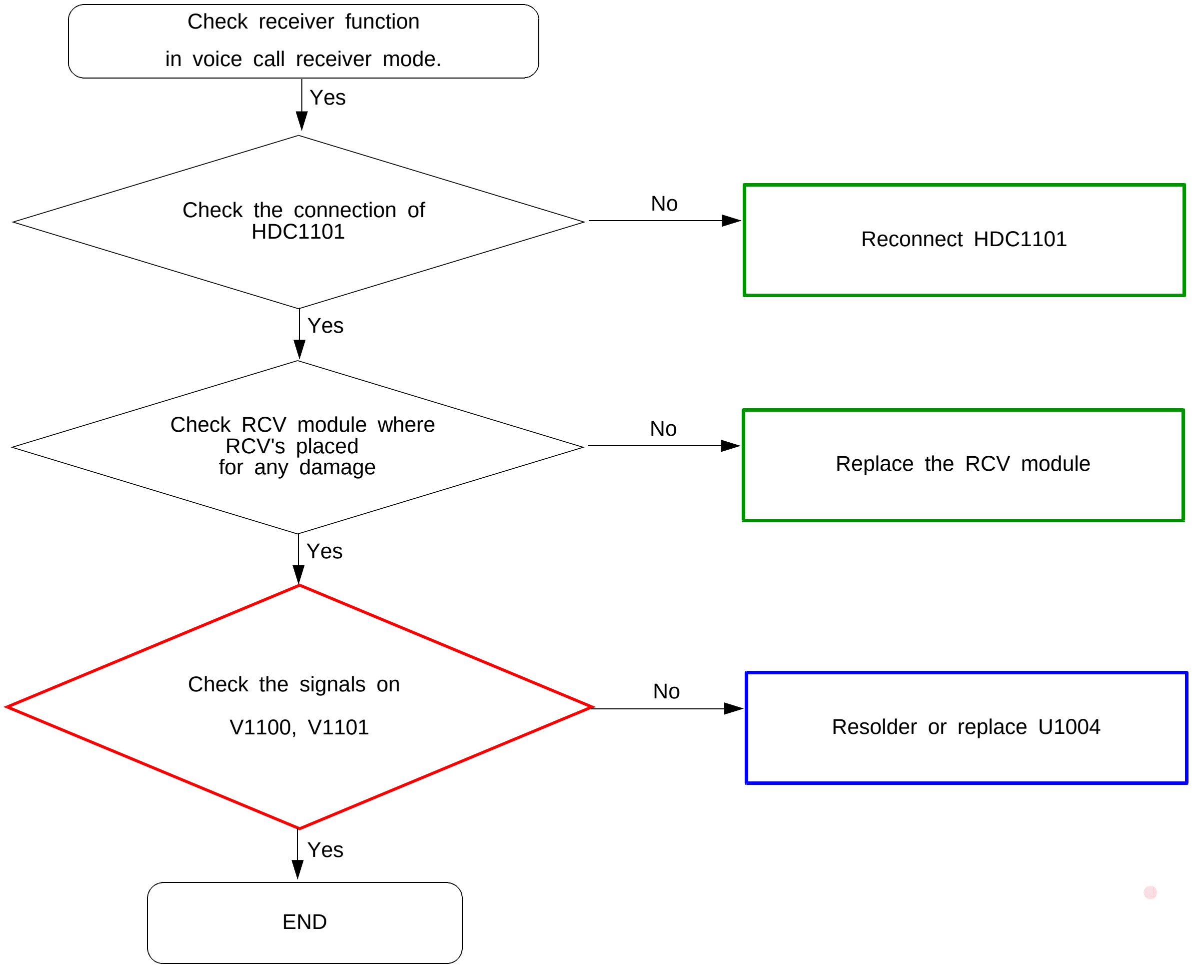
8-3-10. Receiver Part



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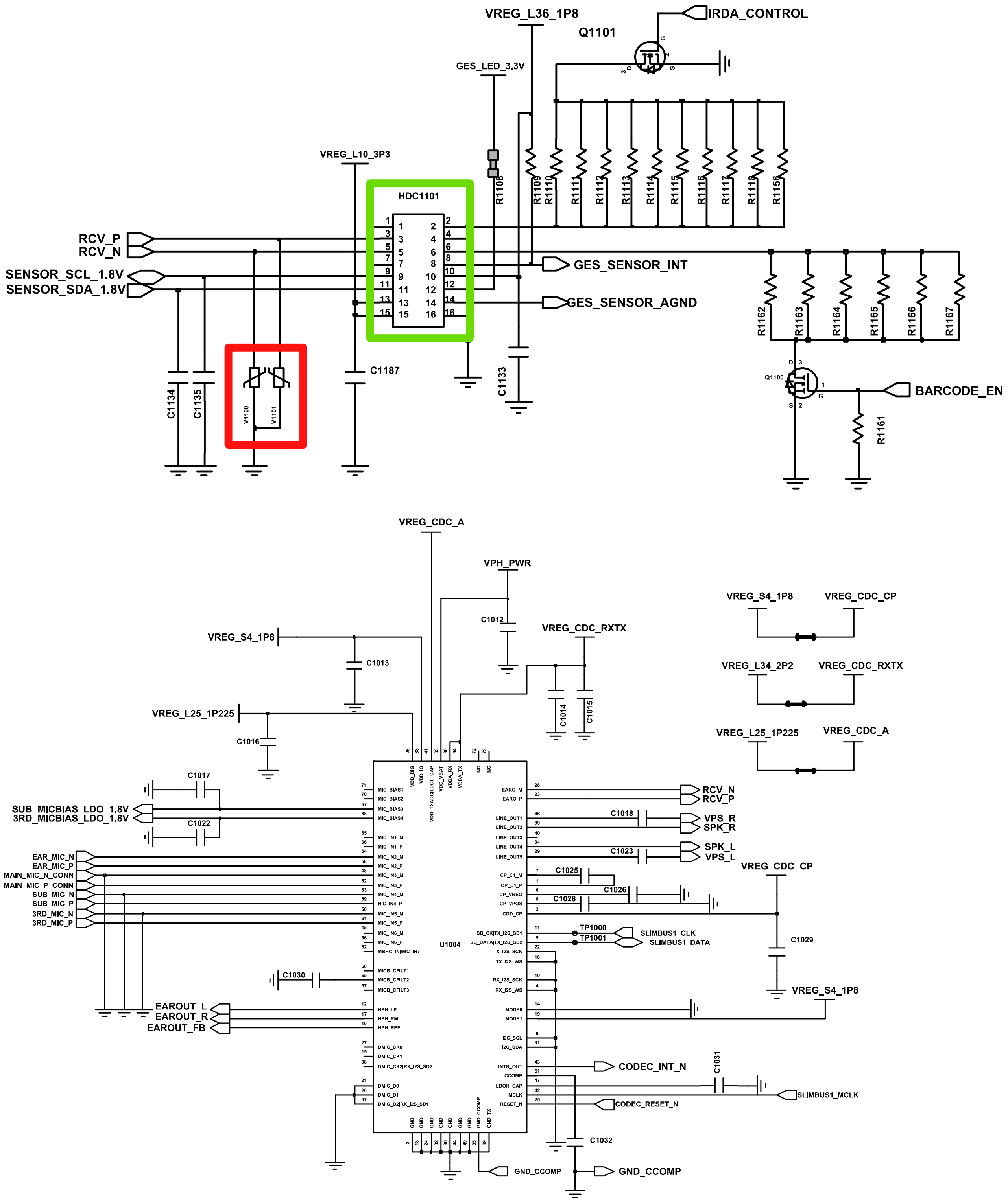

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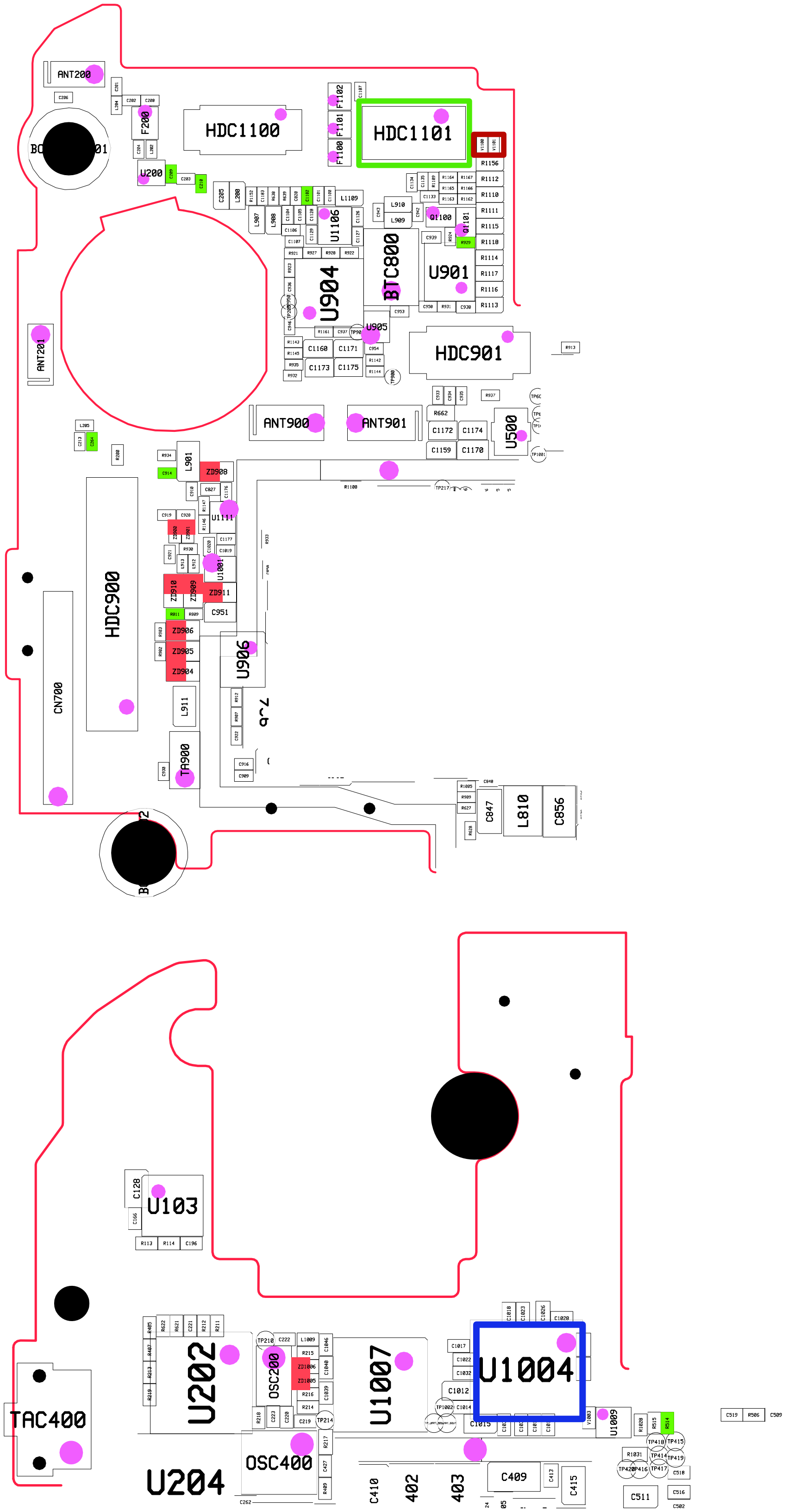

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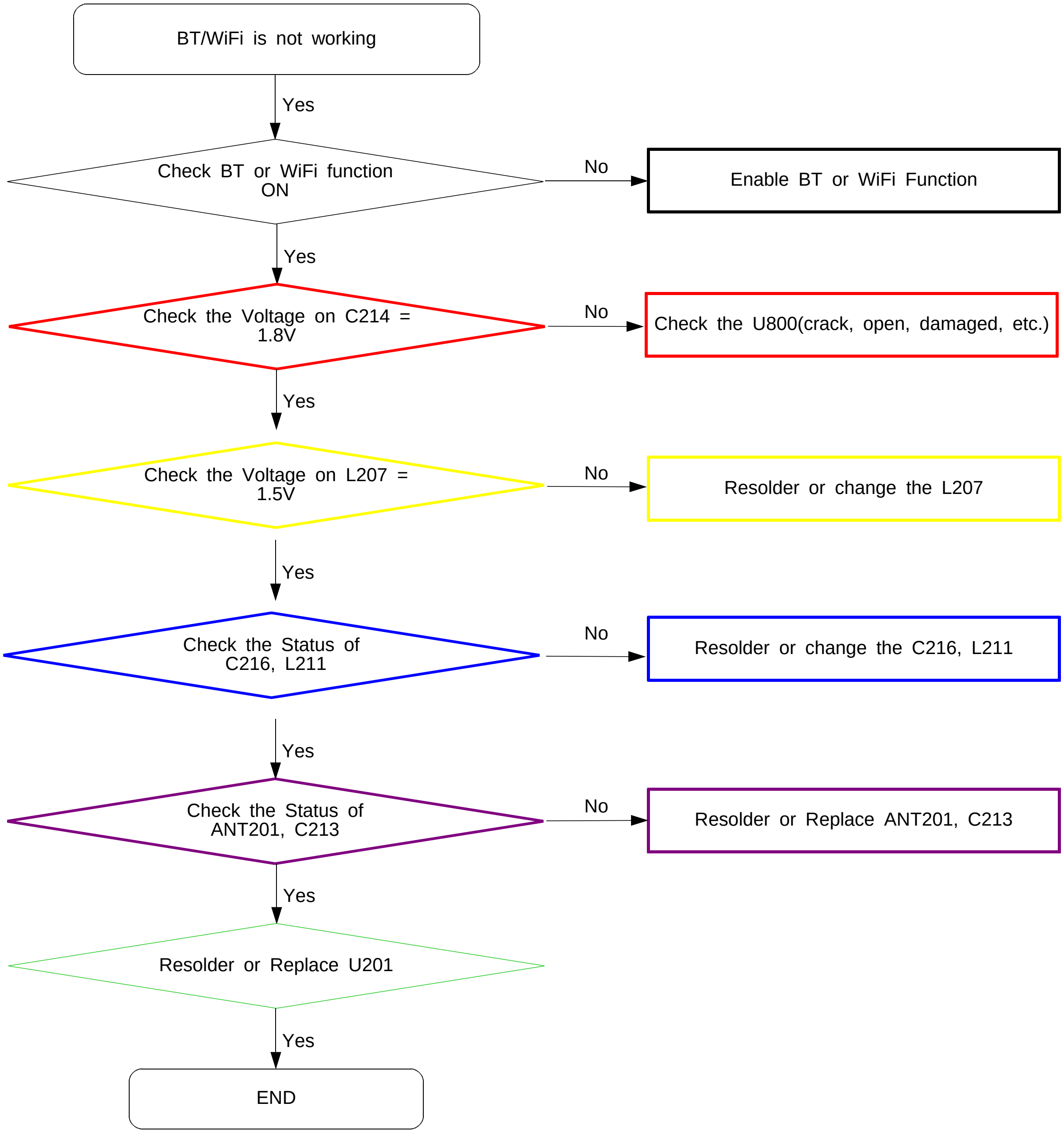
8-3-11. BT/WIFI



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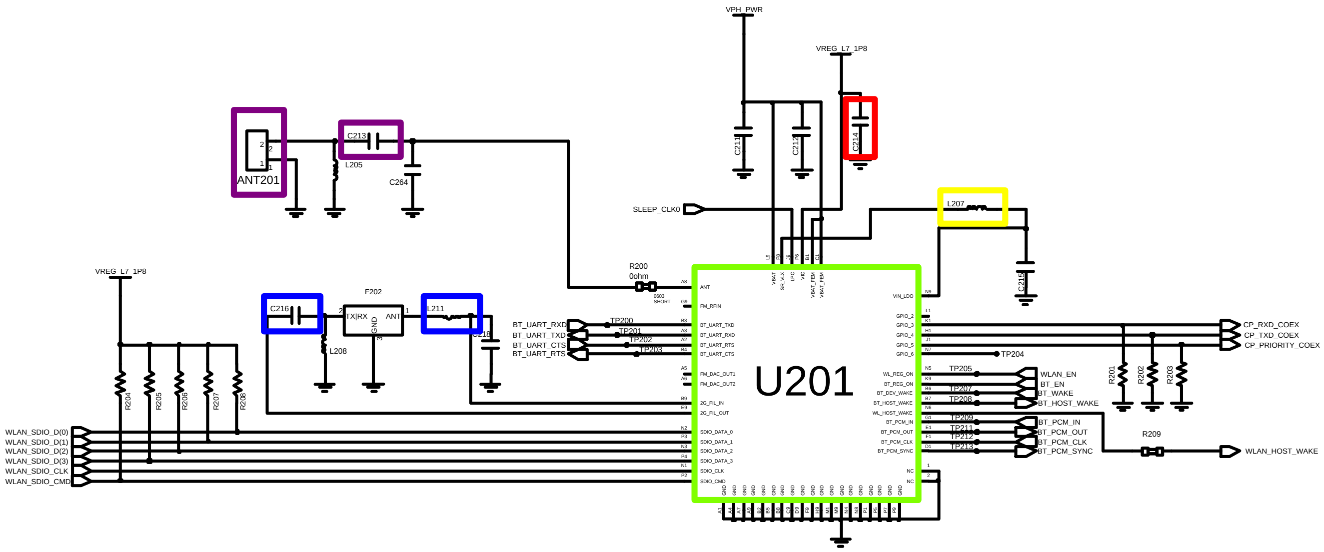

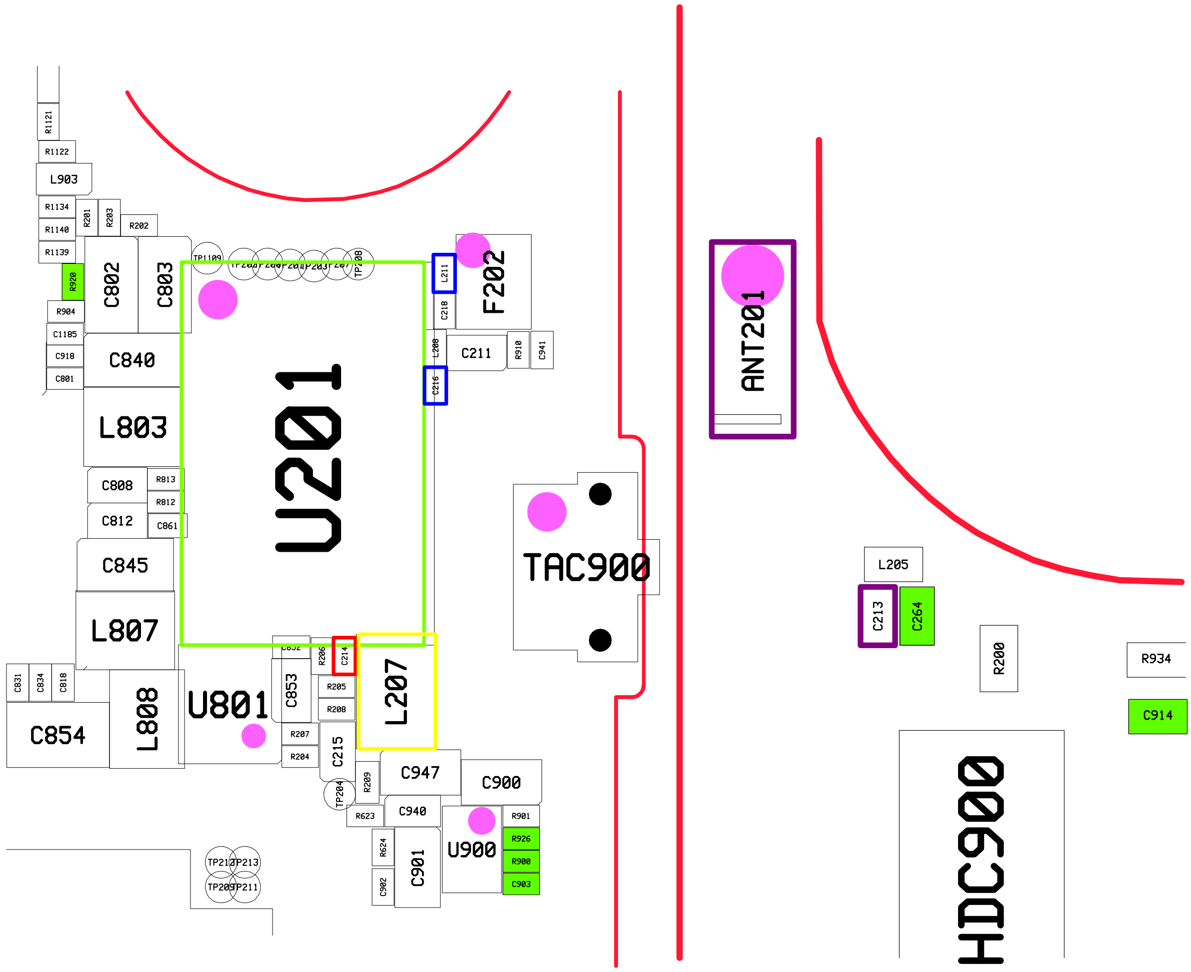

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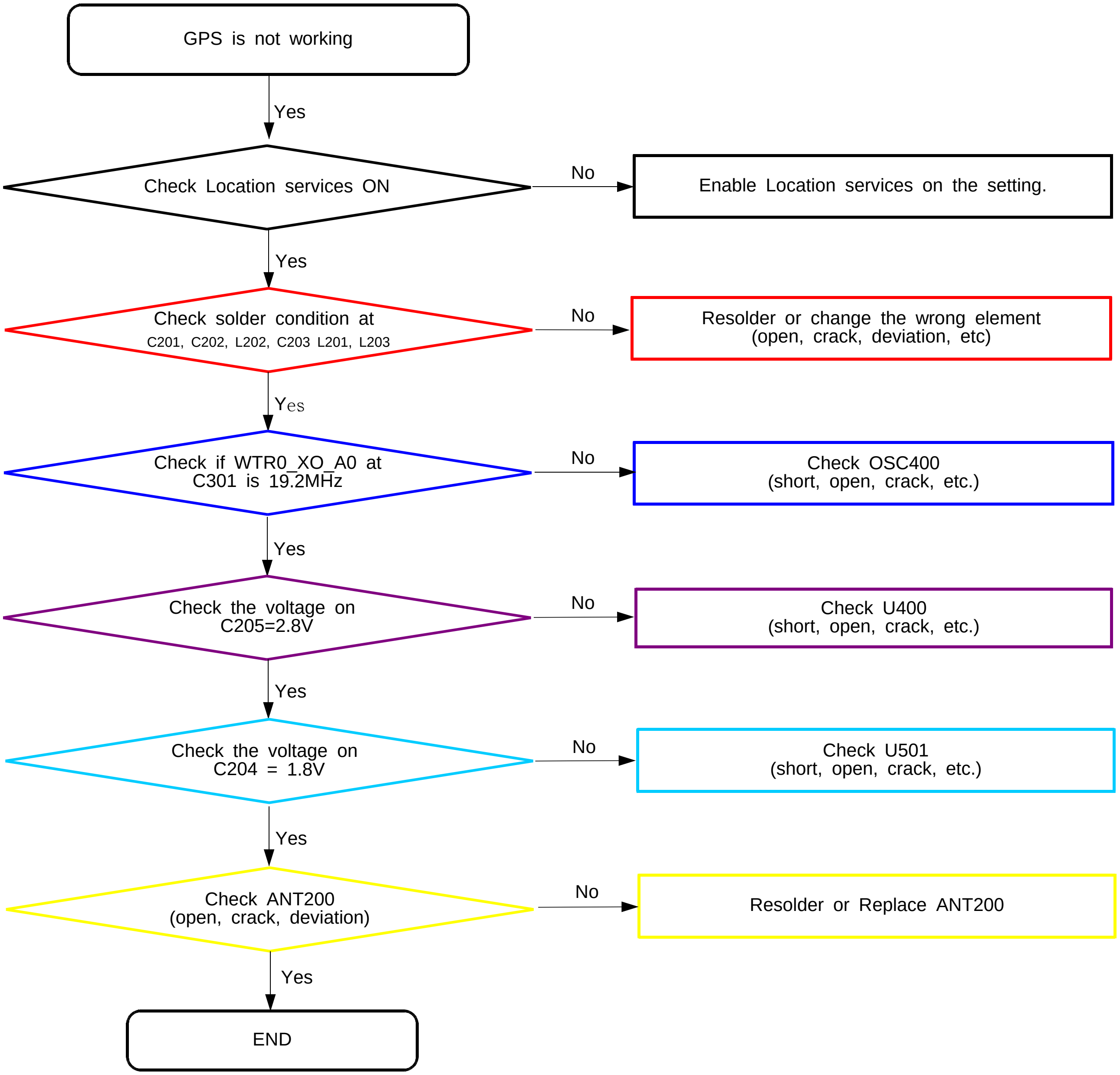
8-3-12. GPS



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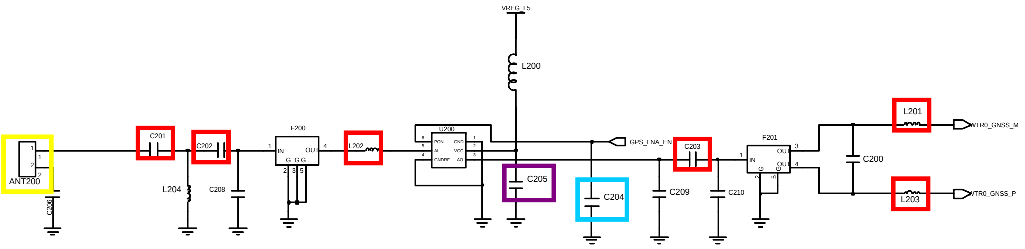

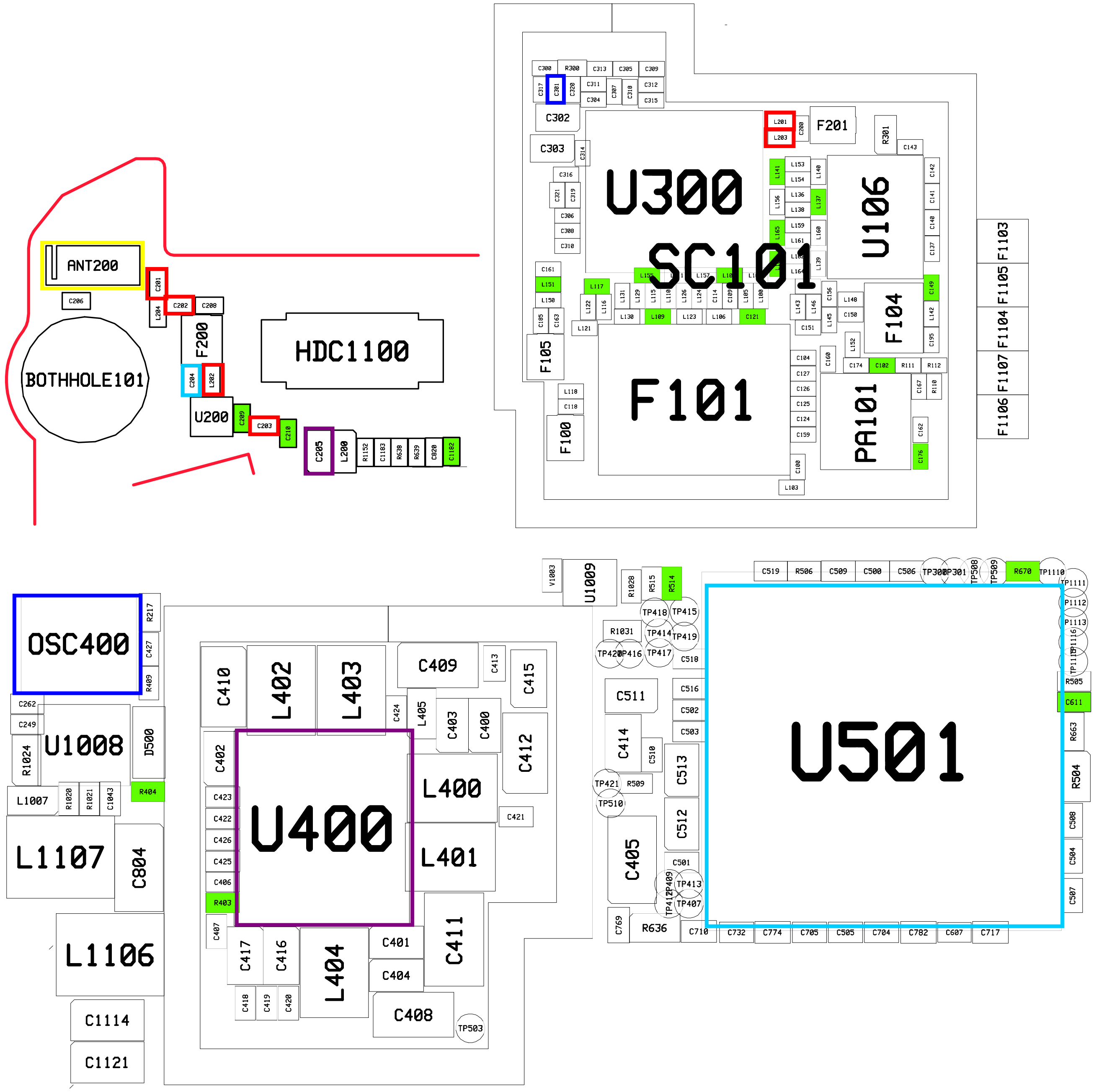

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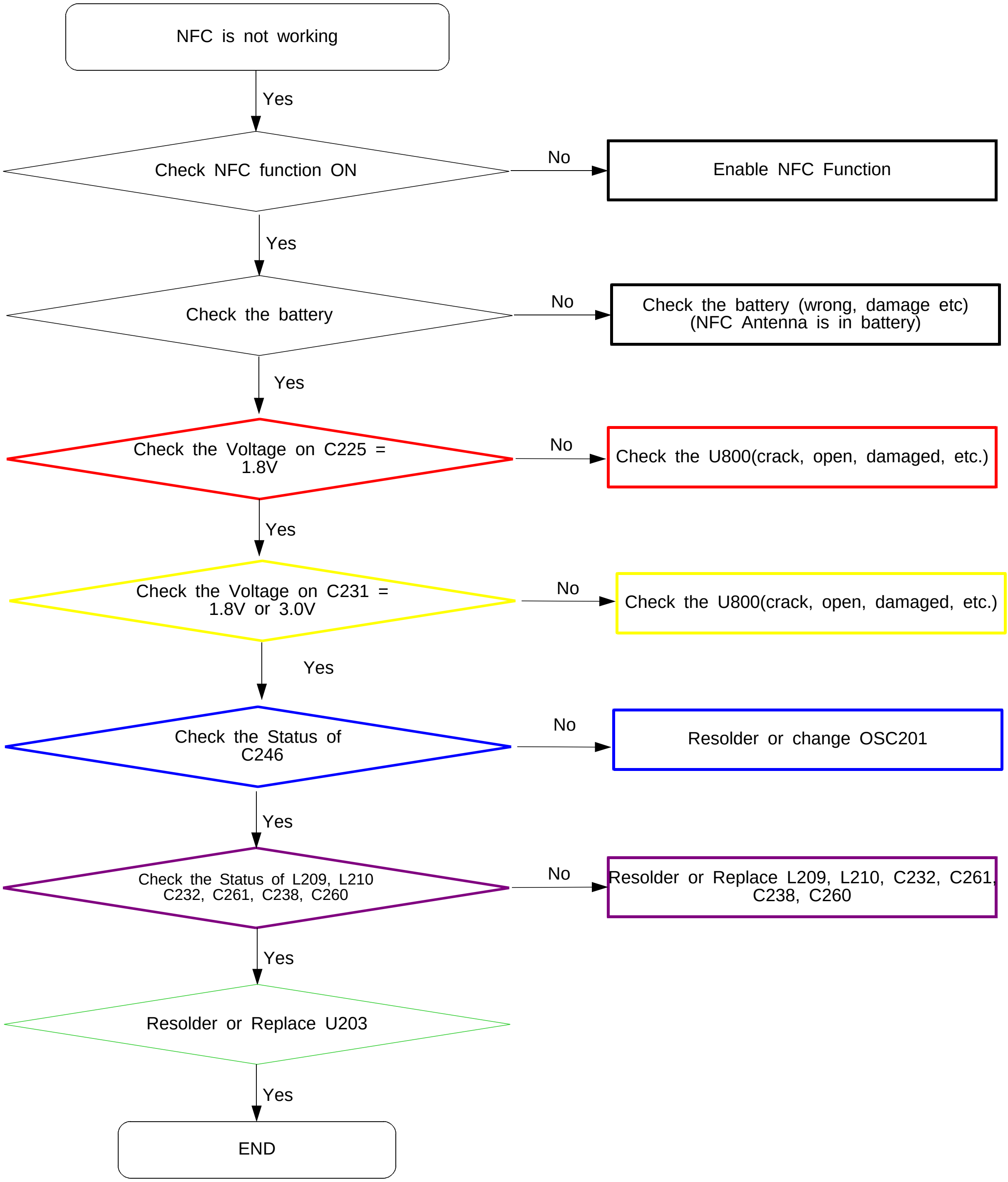
8-3-13. NFC



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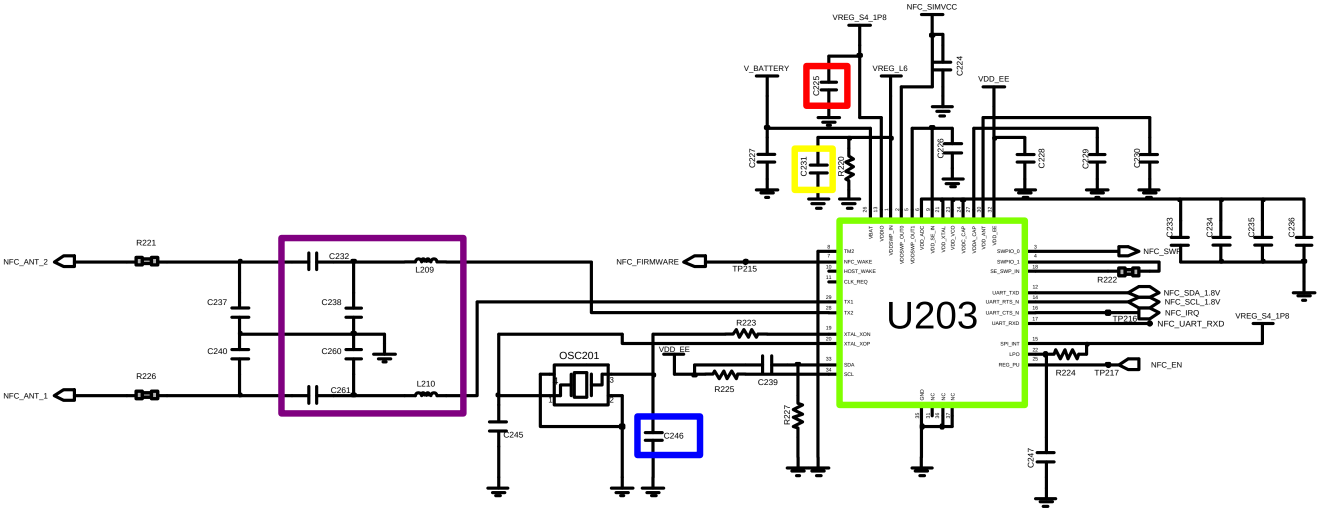

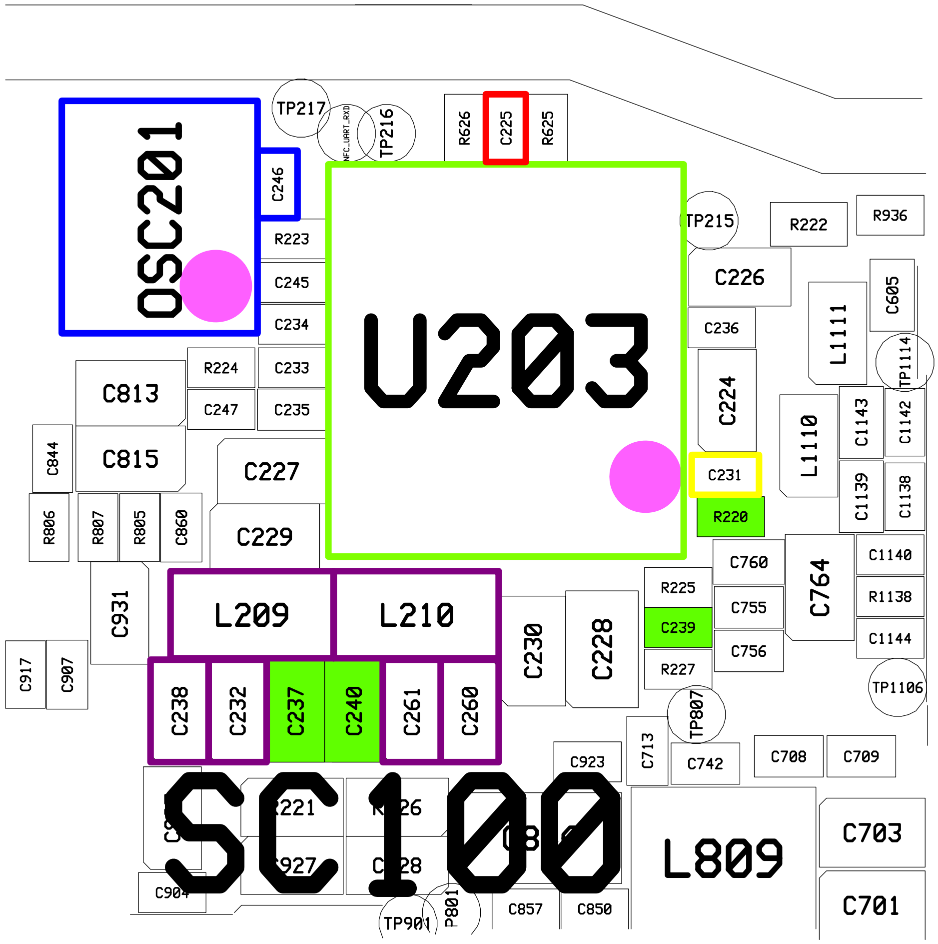

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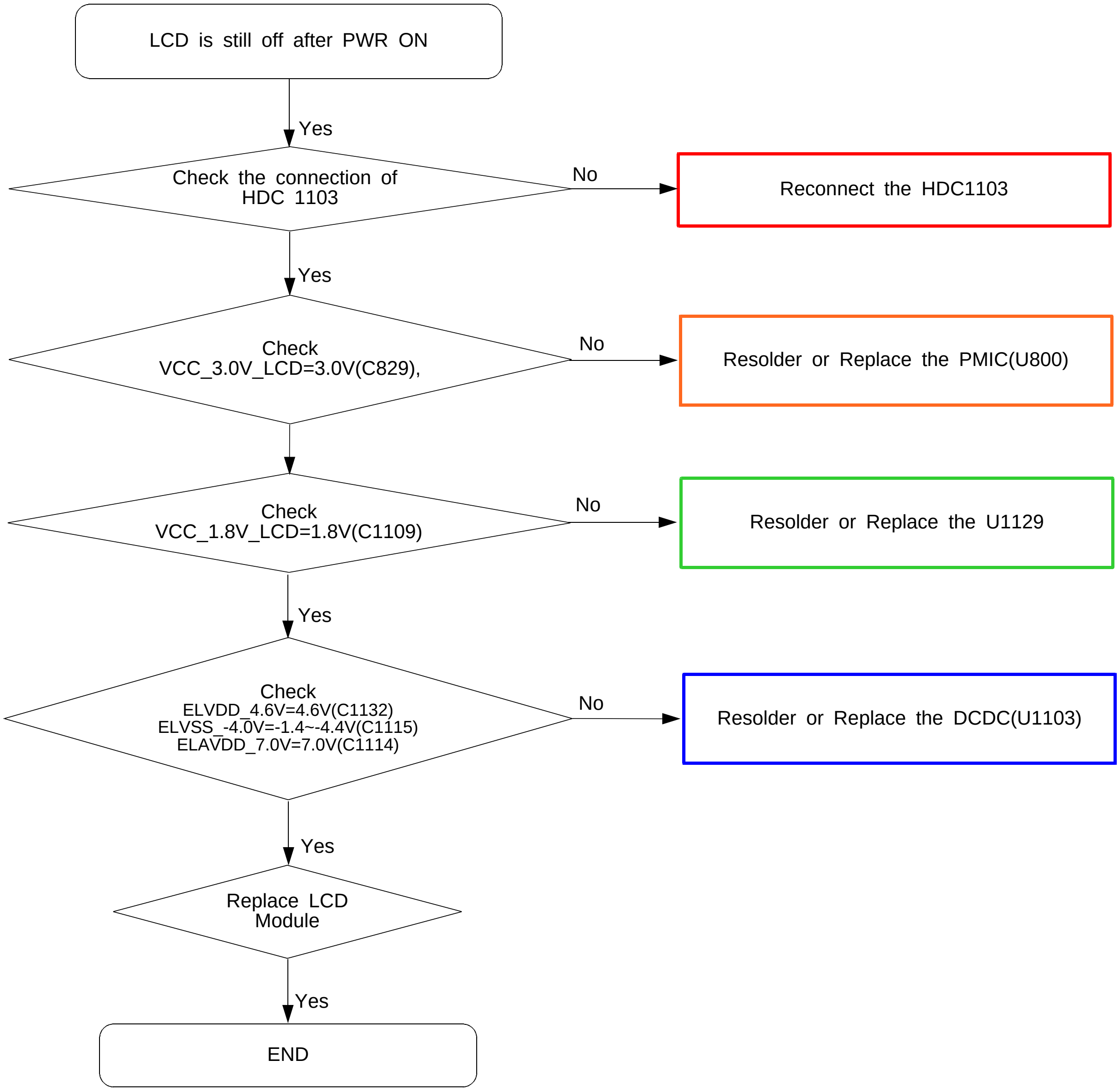
8-3-14. LCD



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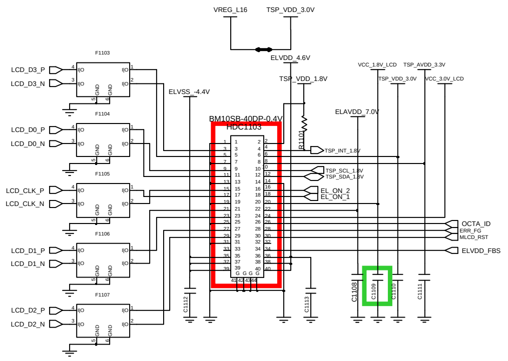

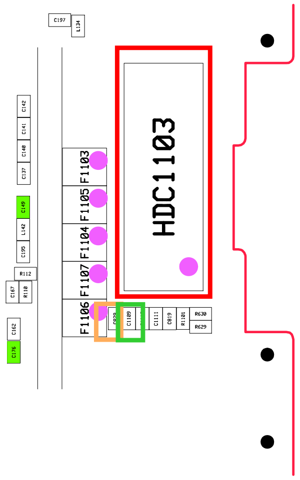

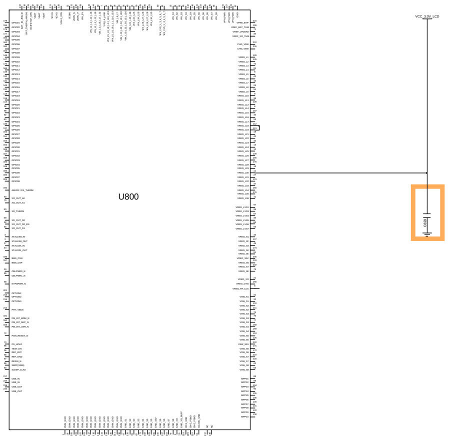

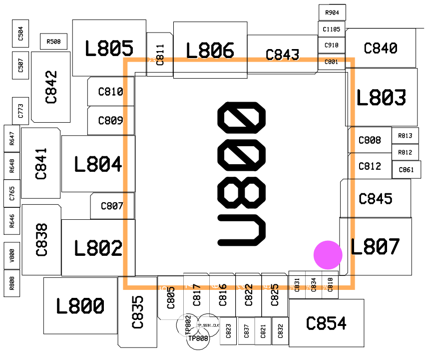

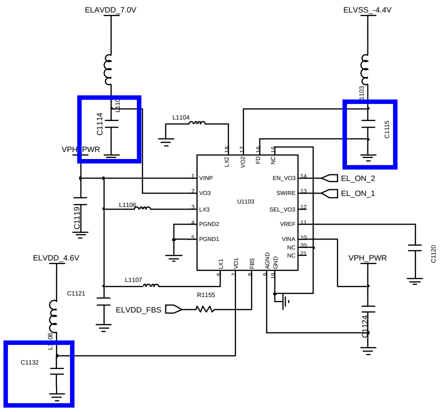

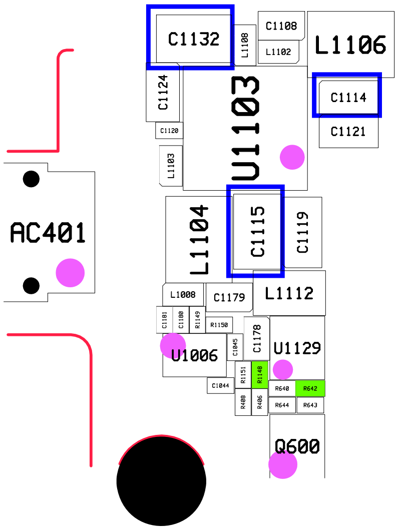

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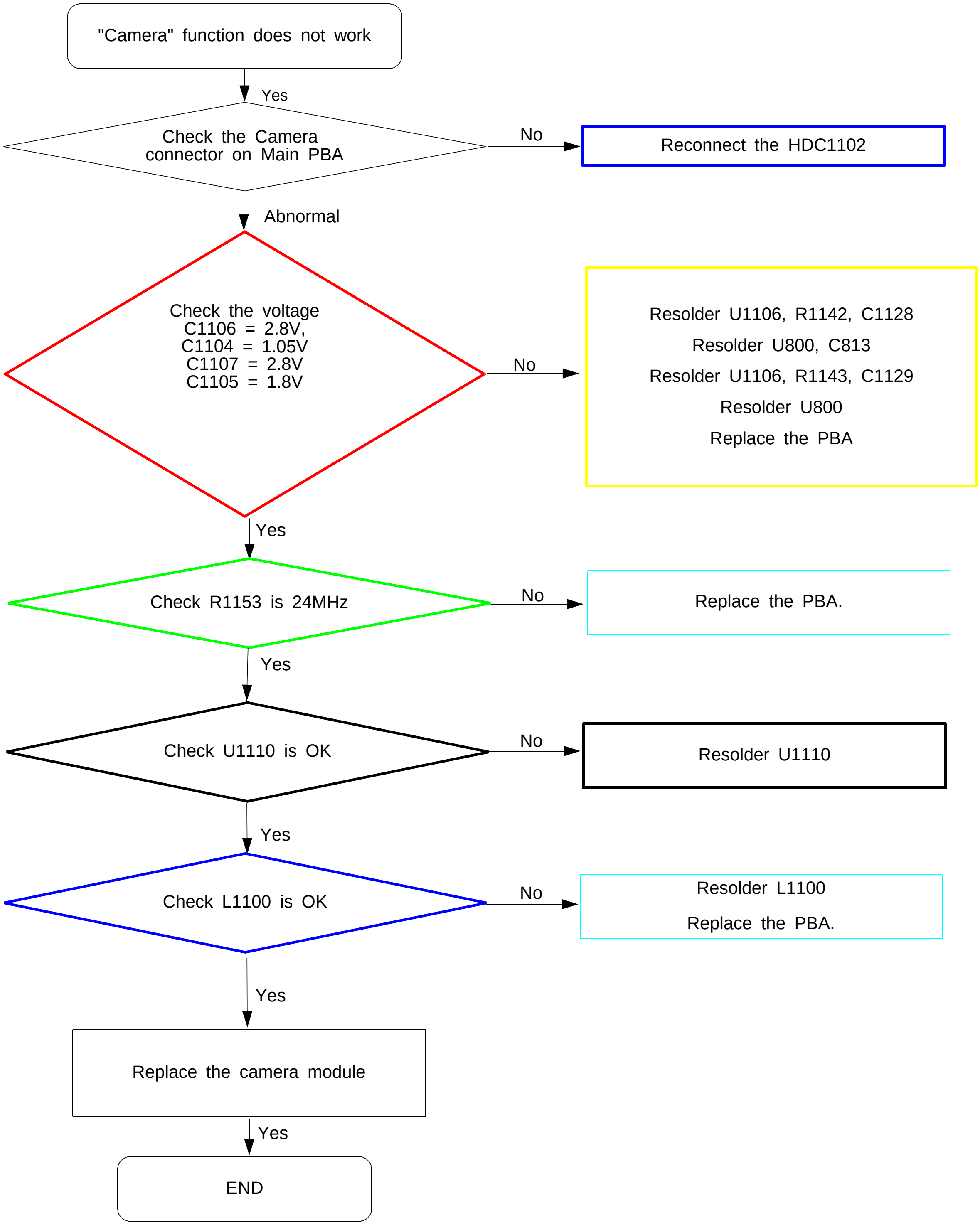
8-3-15. 13M CAM



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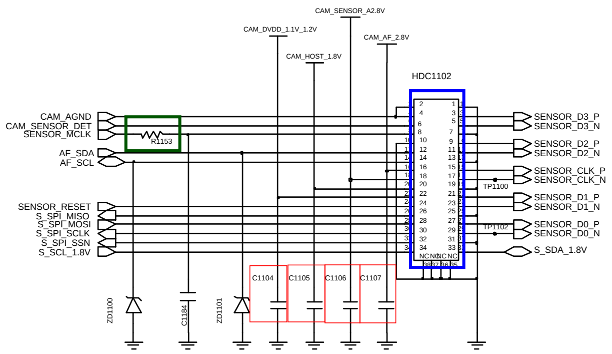

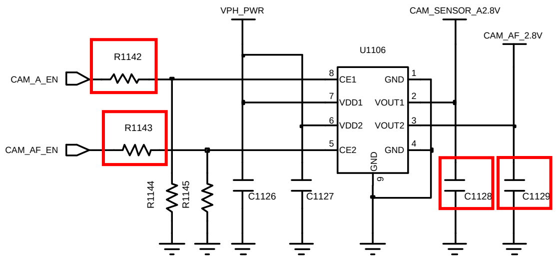

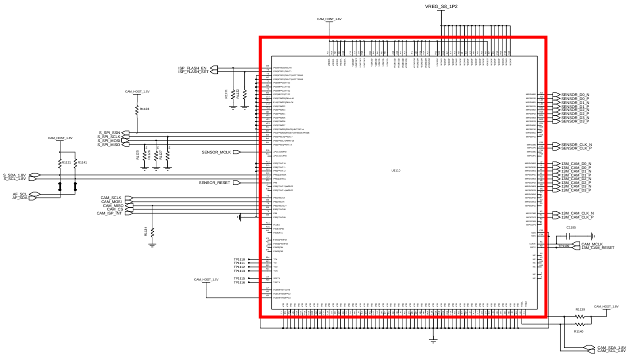

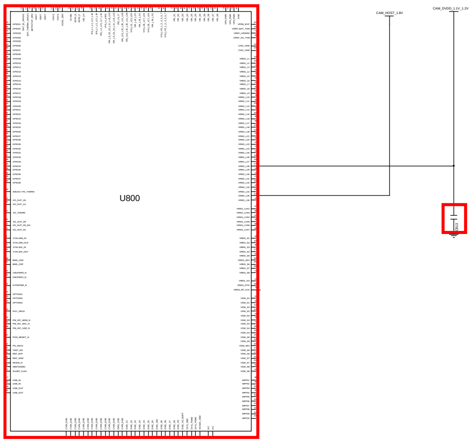

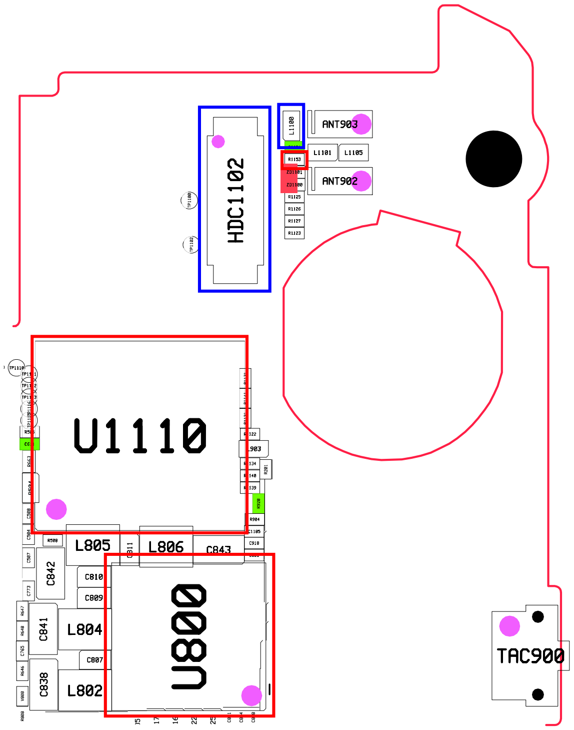

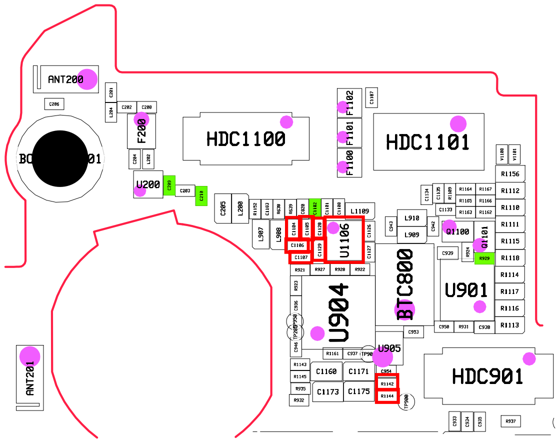

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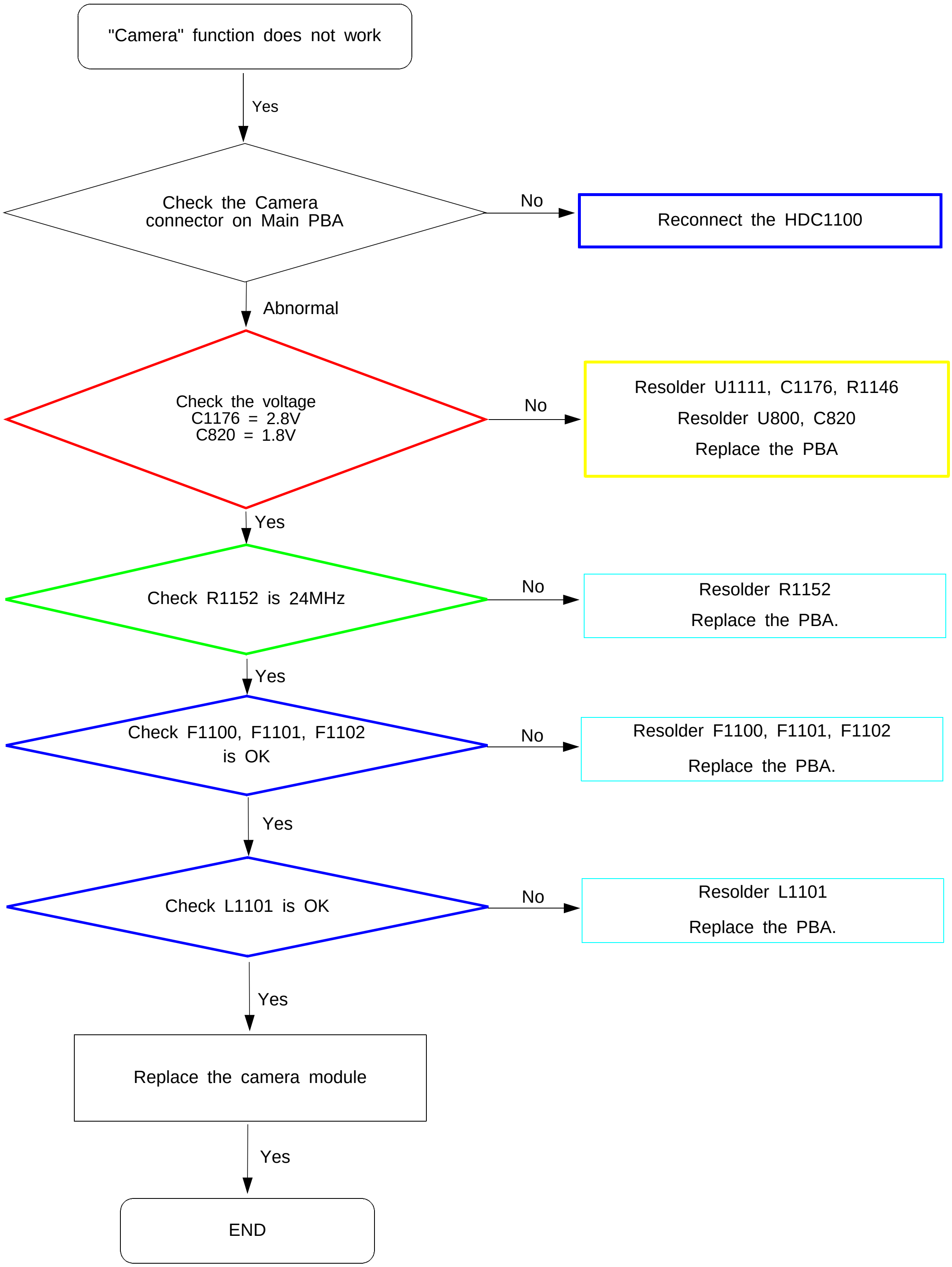
8-3-16. VT CAM



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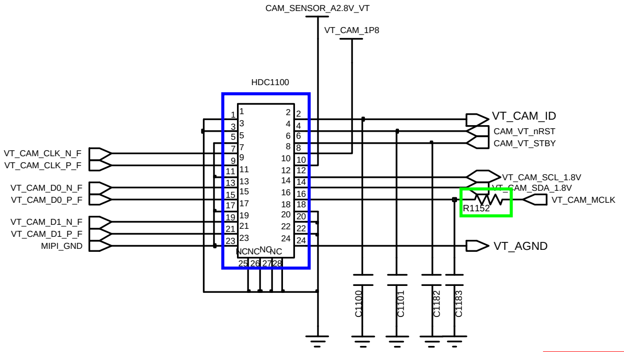
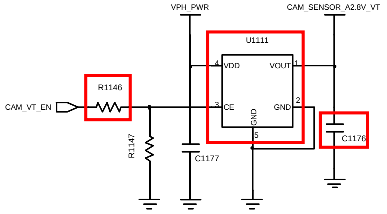
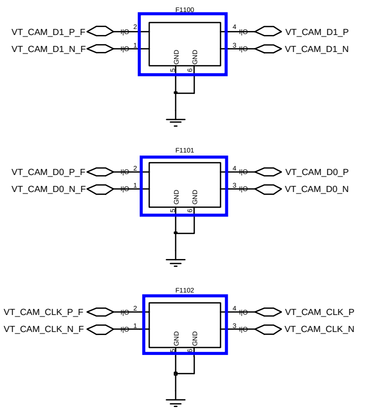
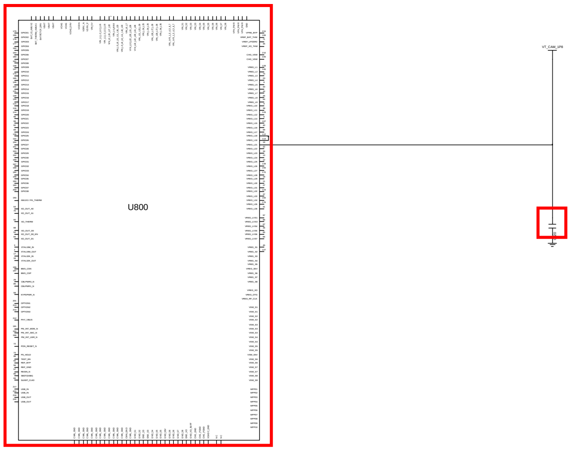
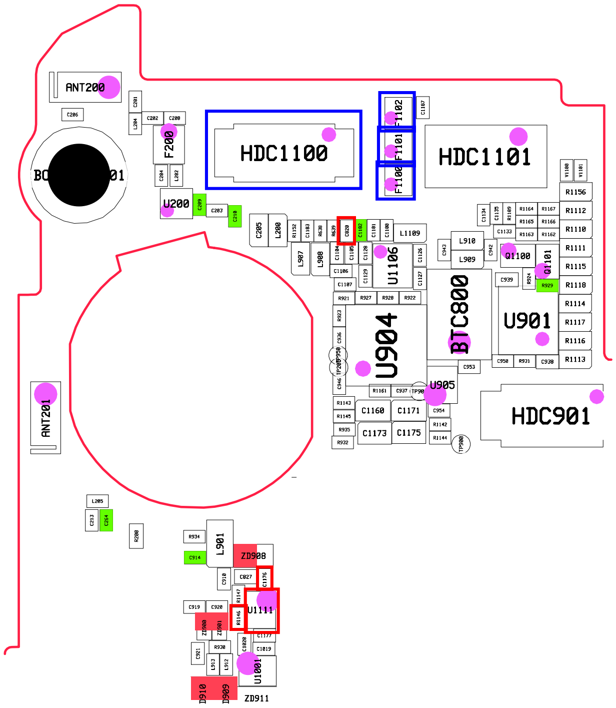


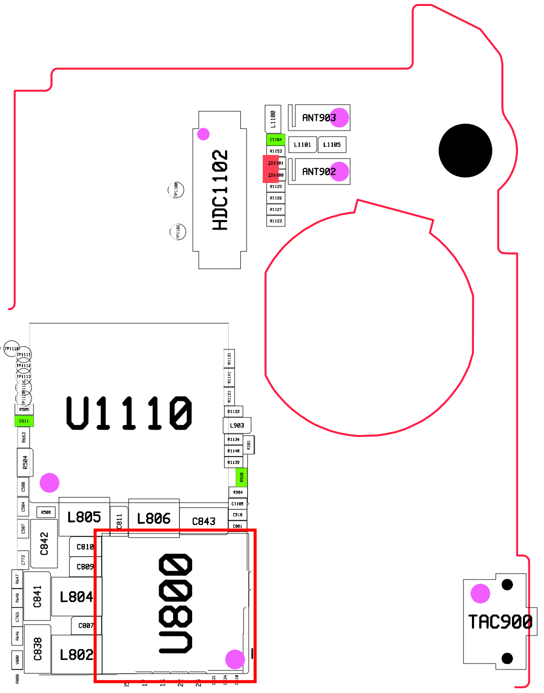


VT_CAMERA LDO









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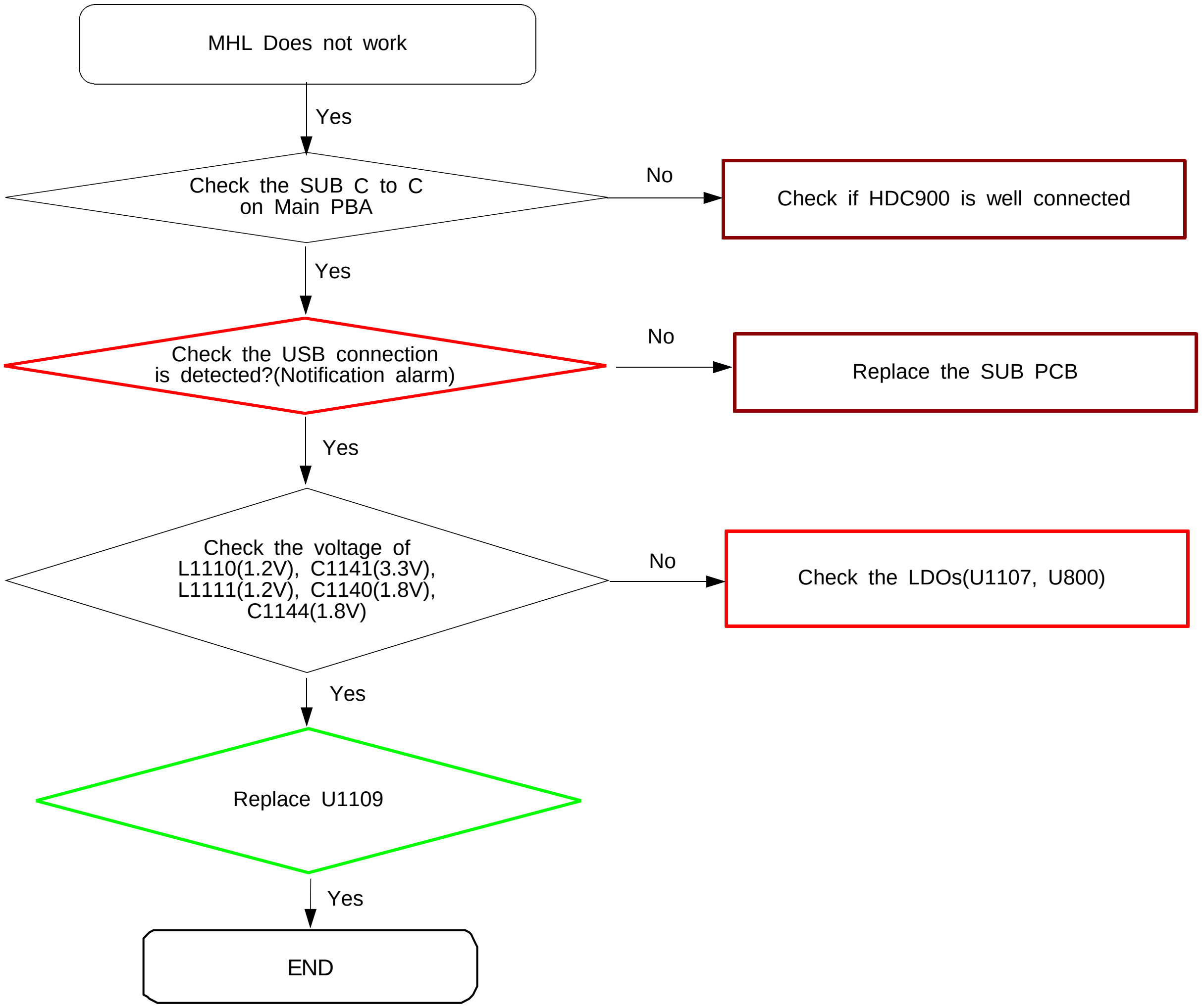
8-3-17. MHL



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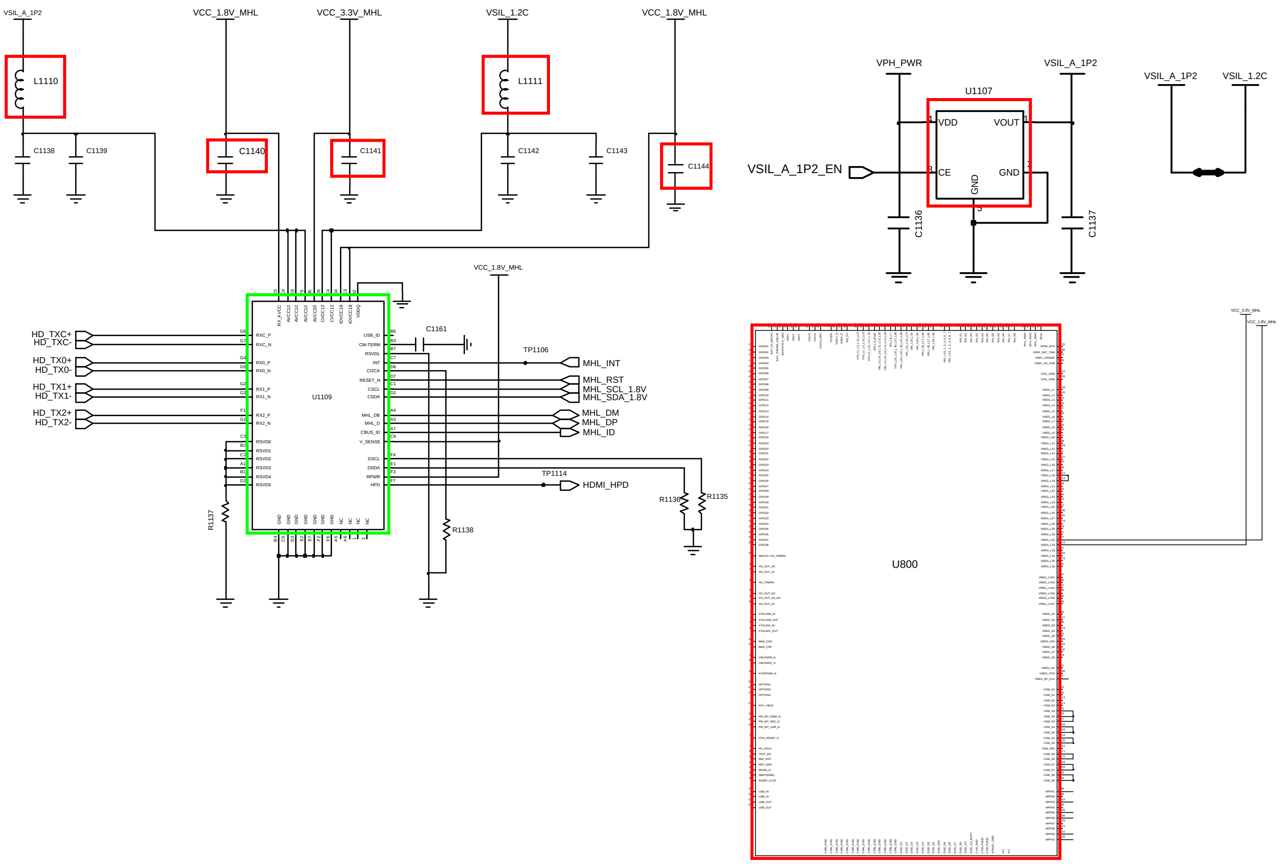

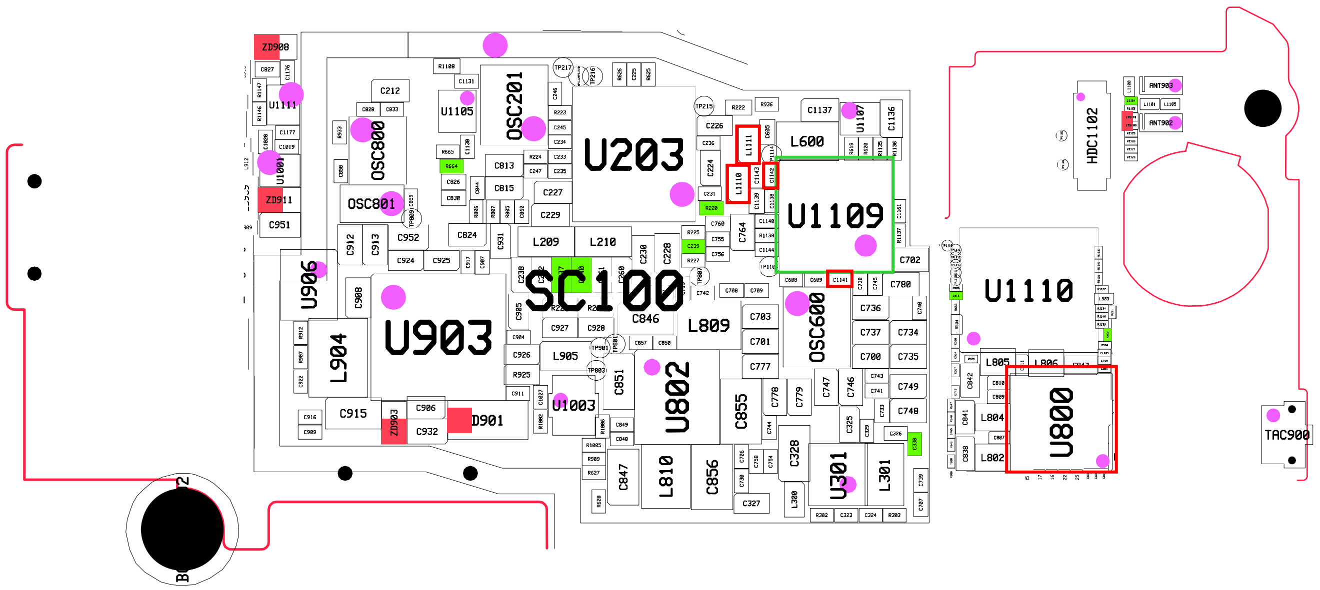

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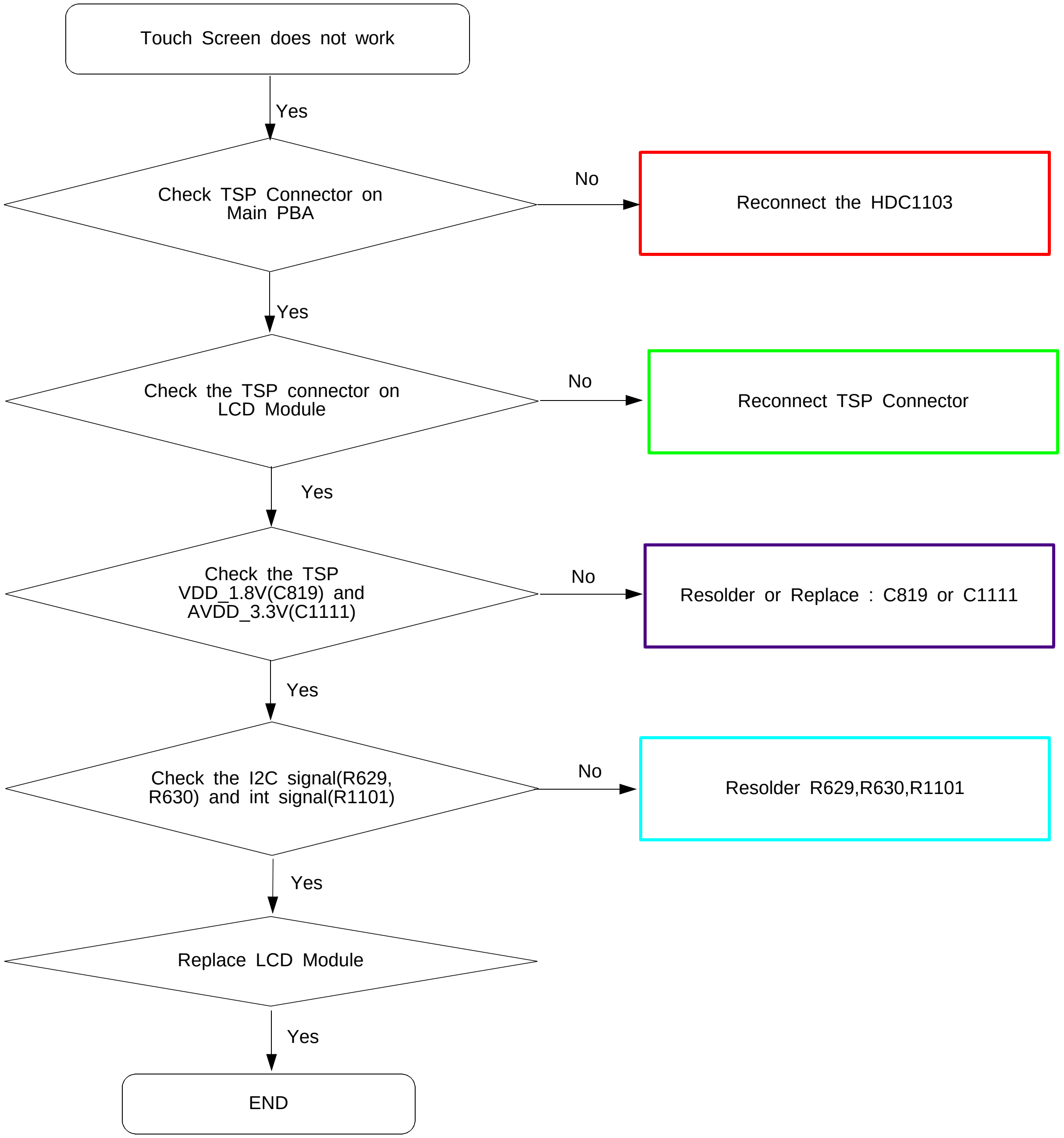
8-3-18. TSP



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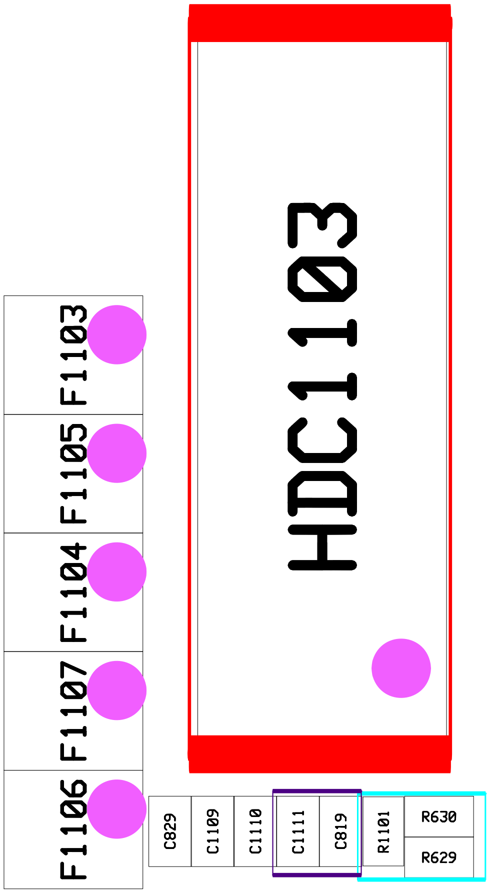

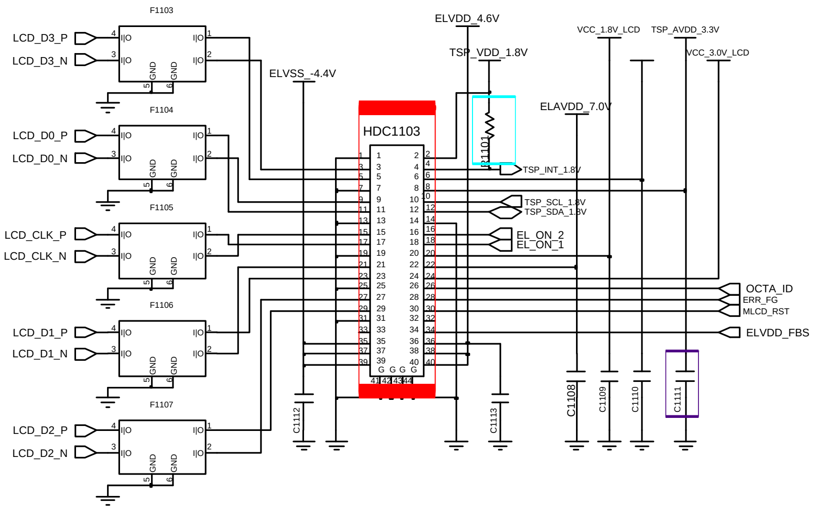

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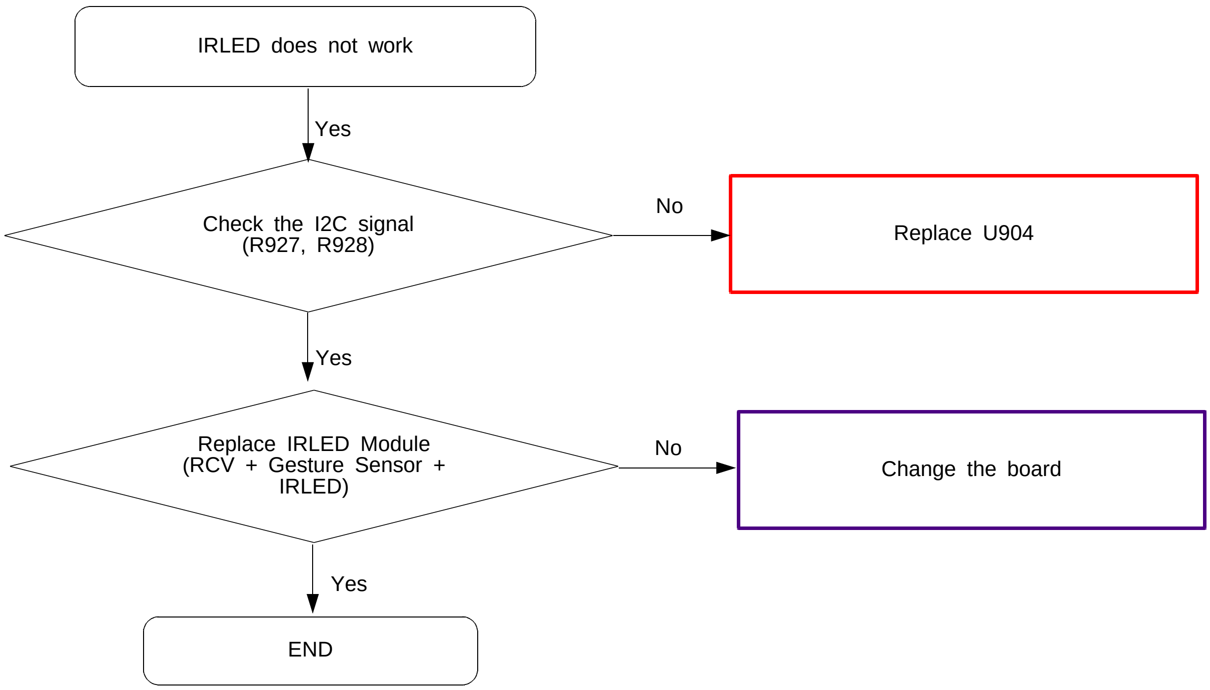
8-3-19. IRLED



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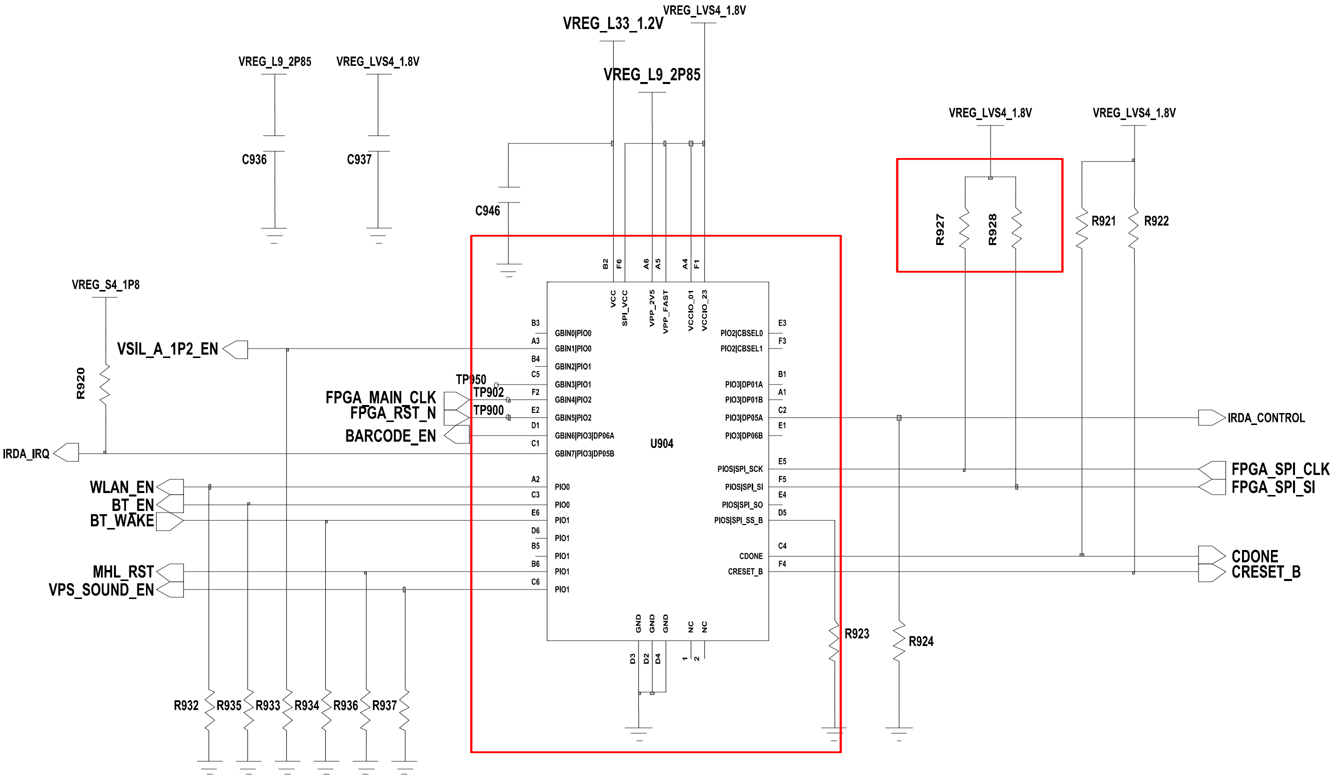

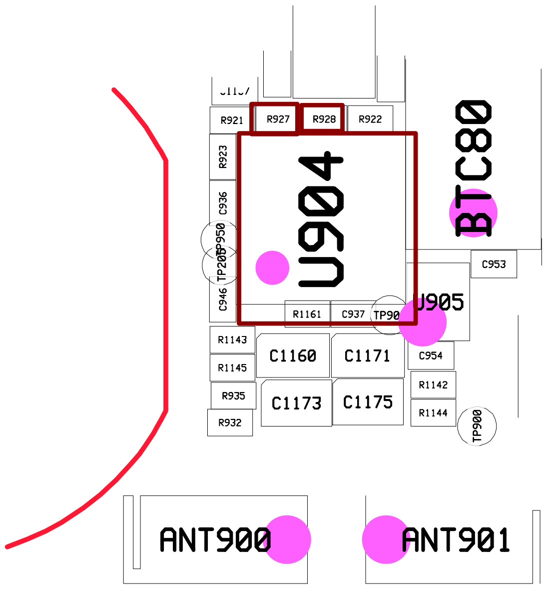

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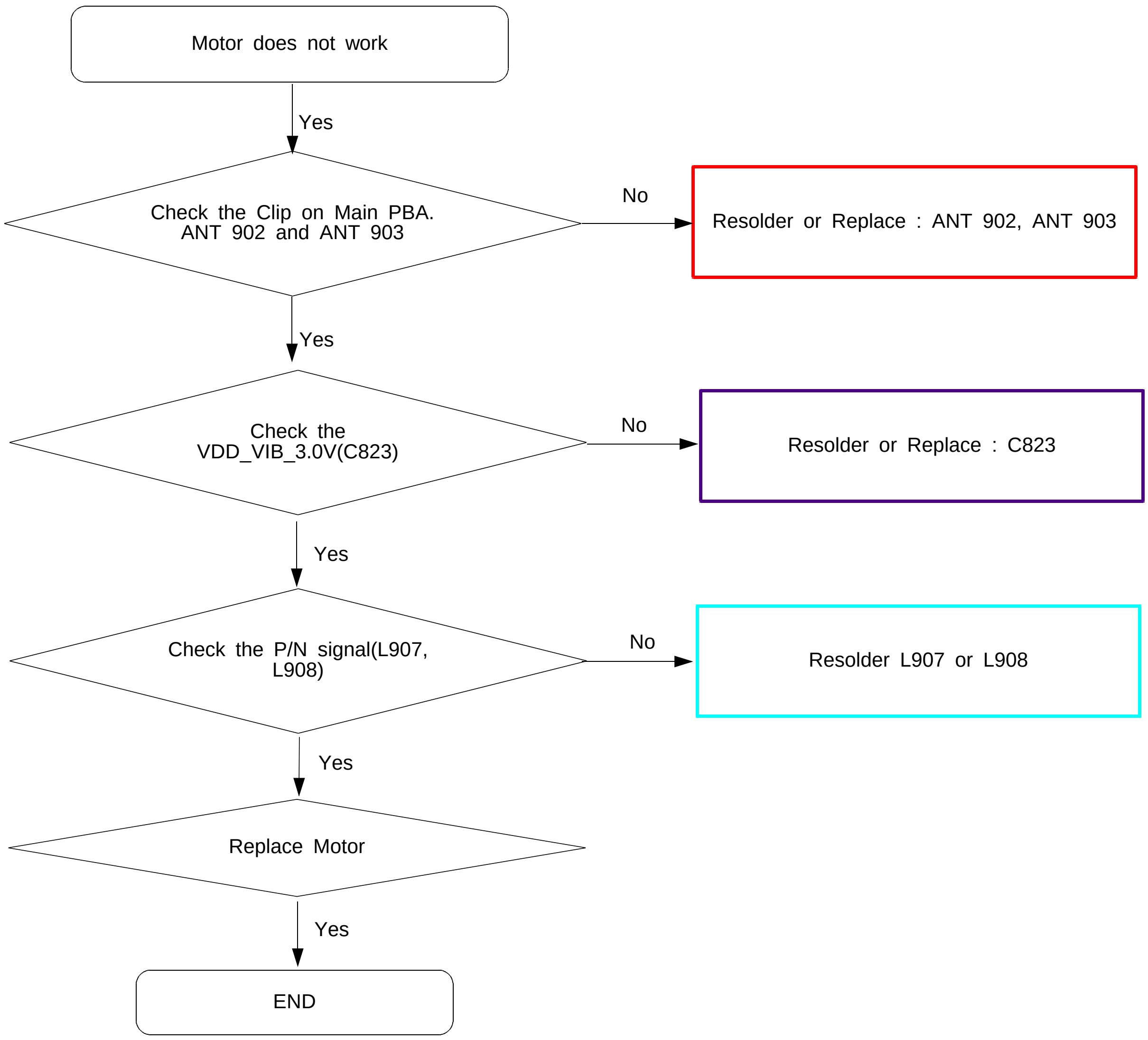
8-3-20. Motor



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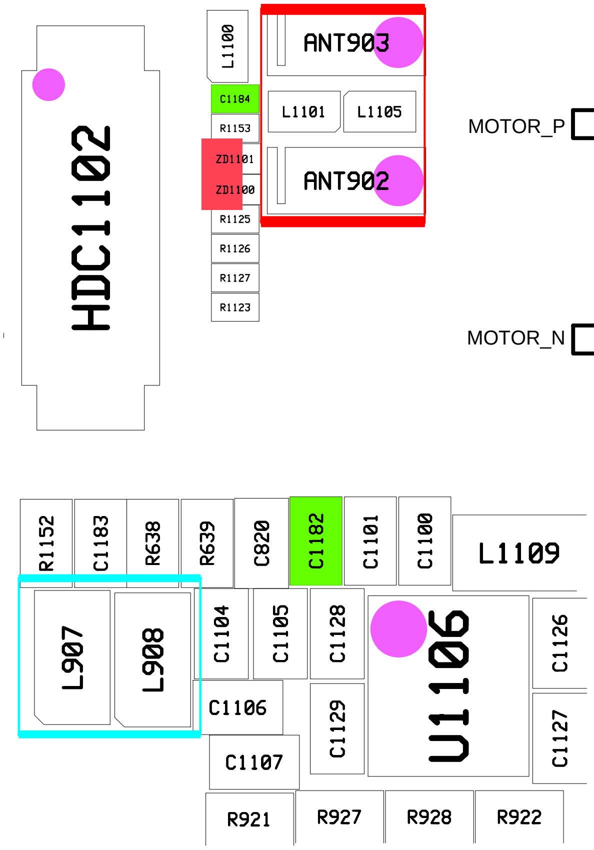

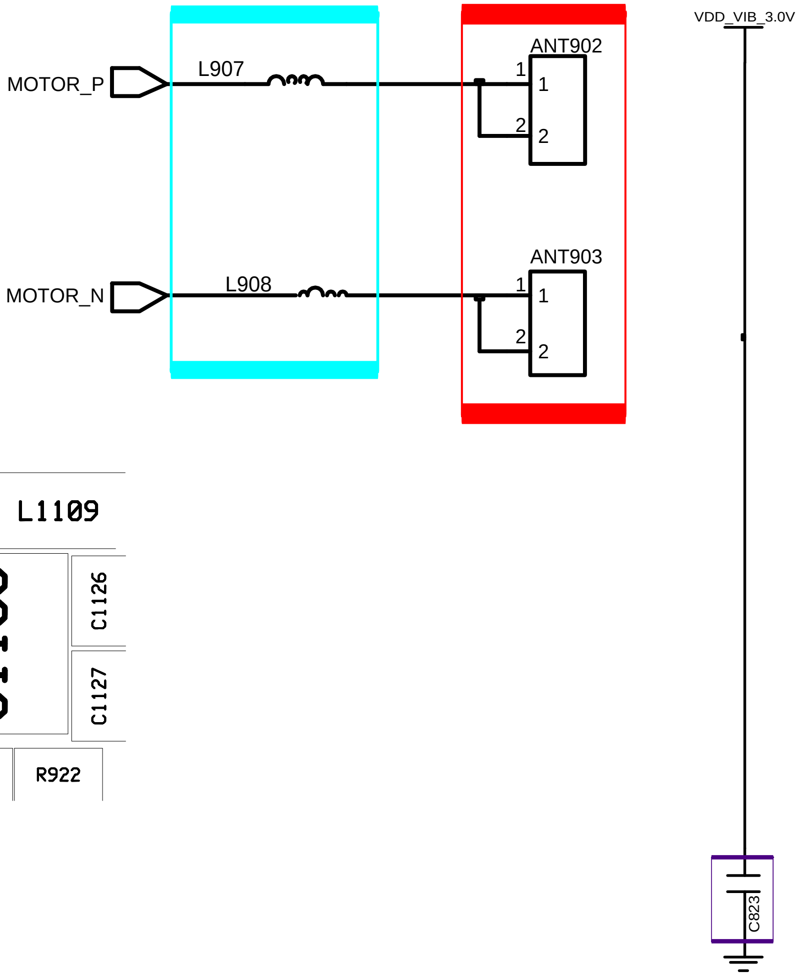

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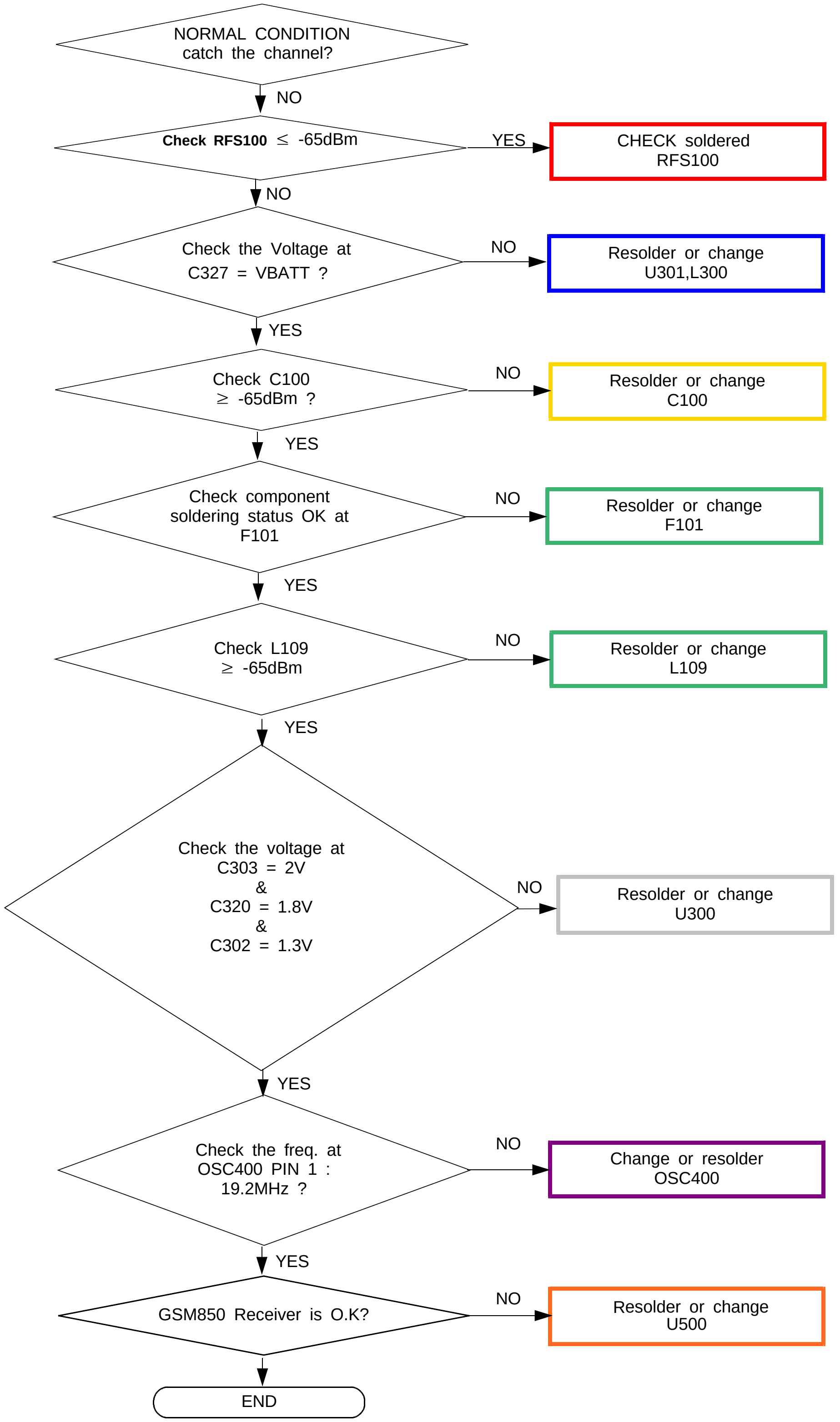
8-3-21. GSM850 RX



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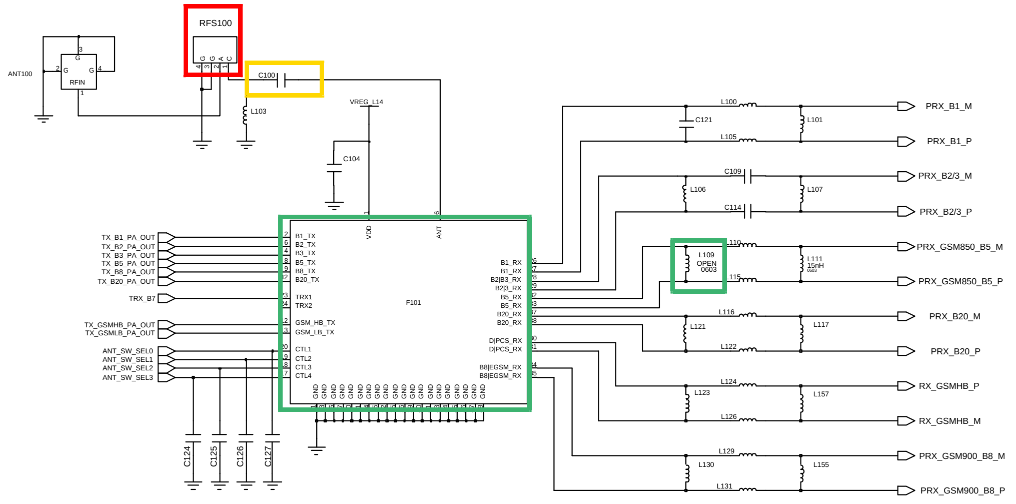

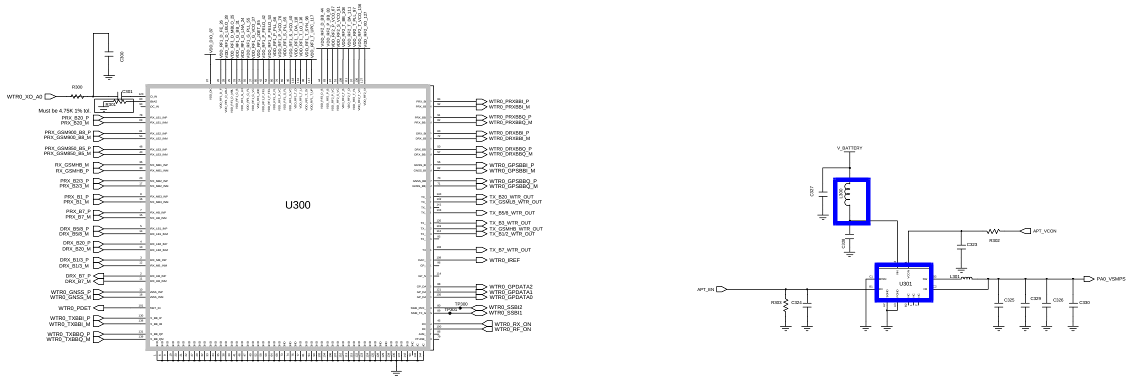

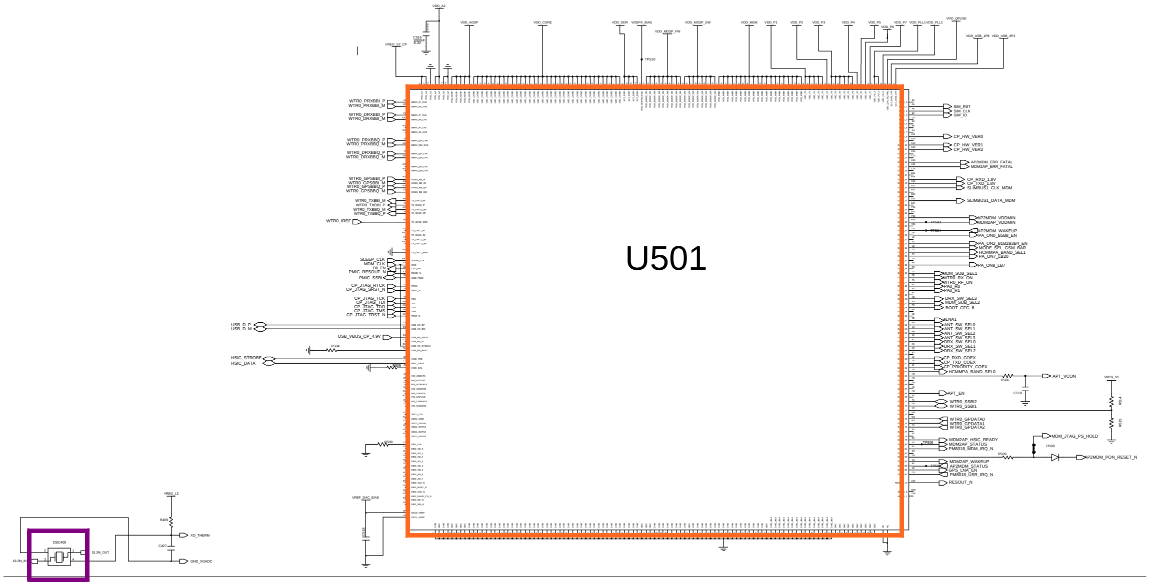

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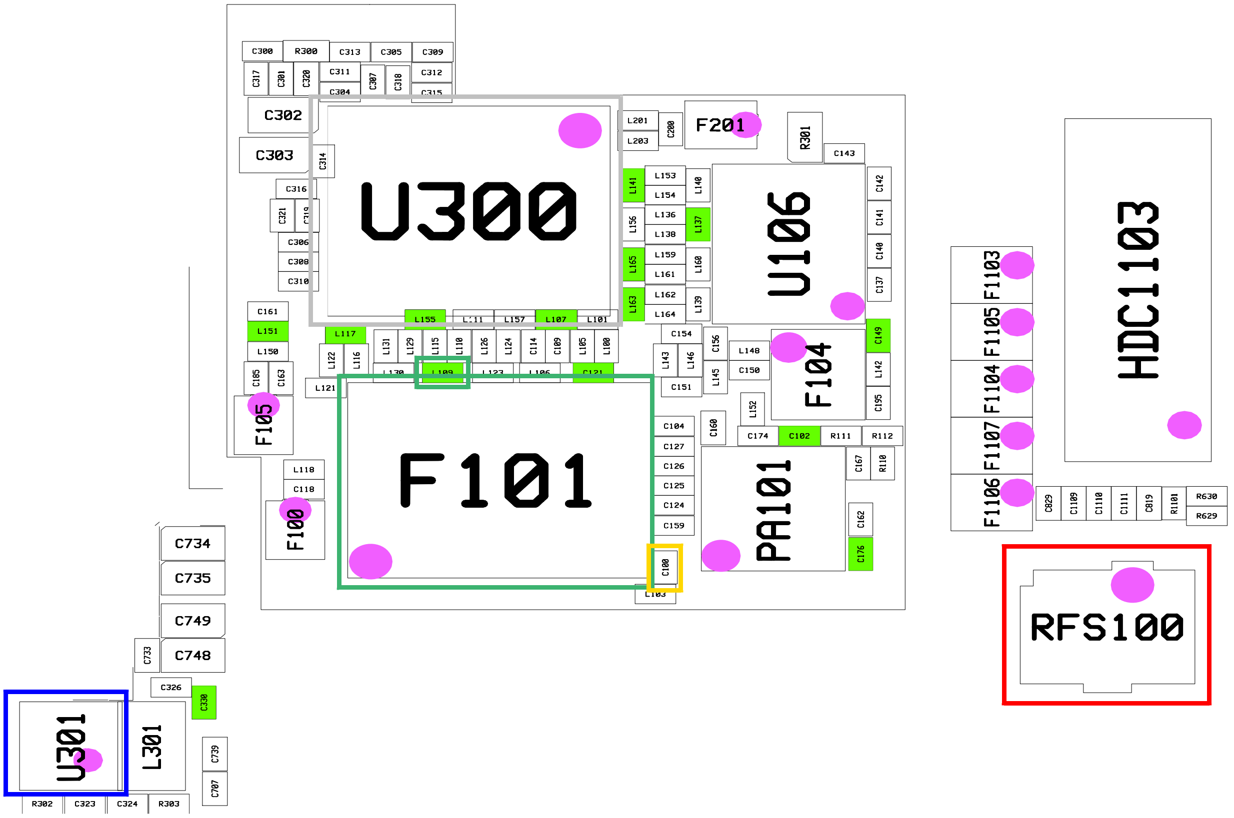

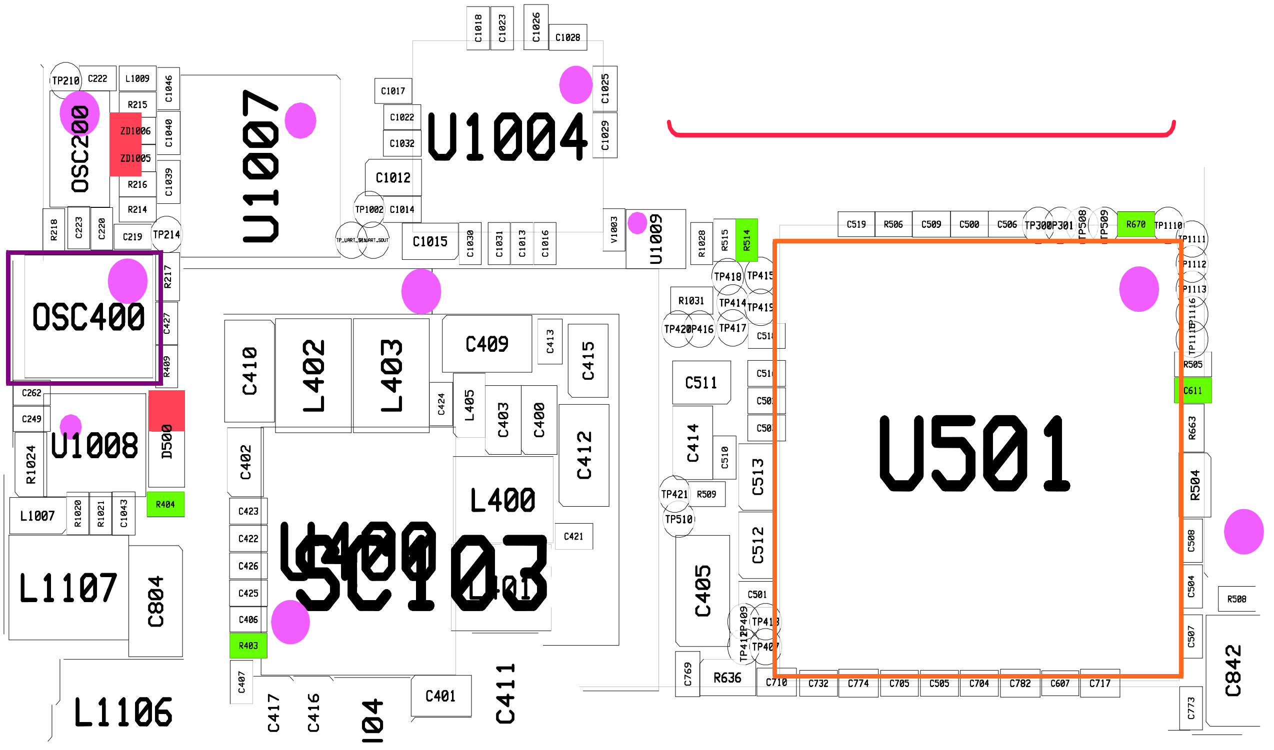

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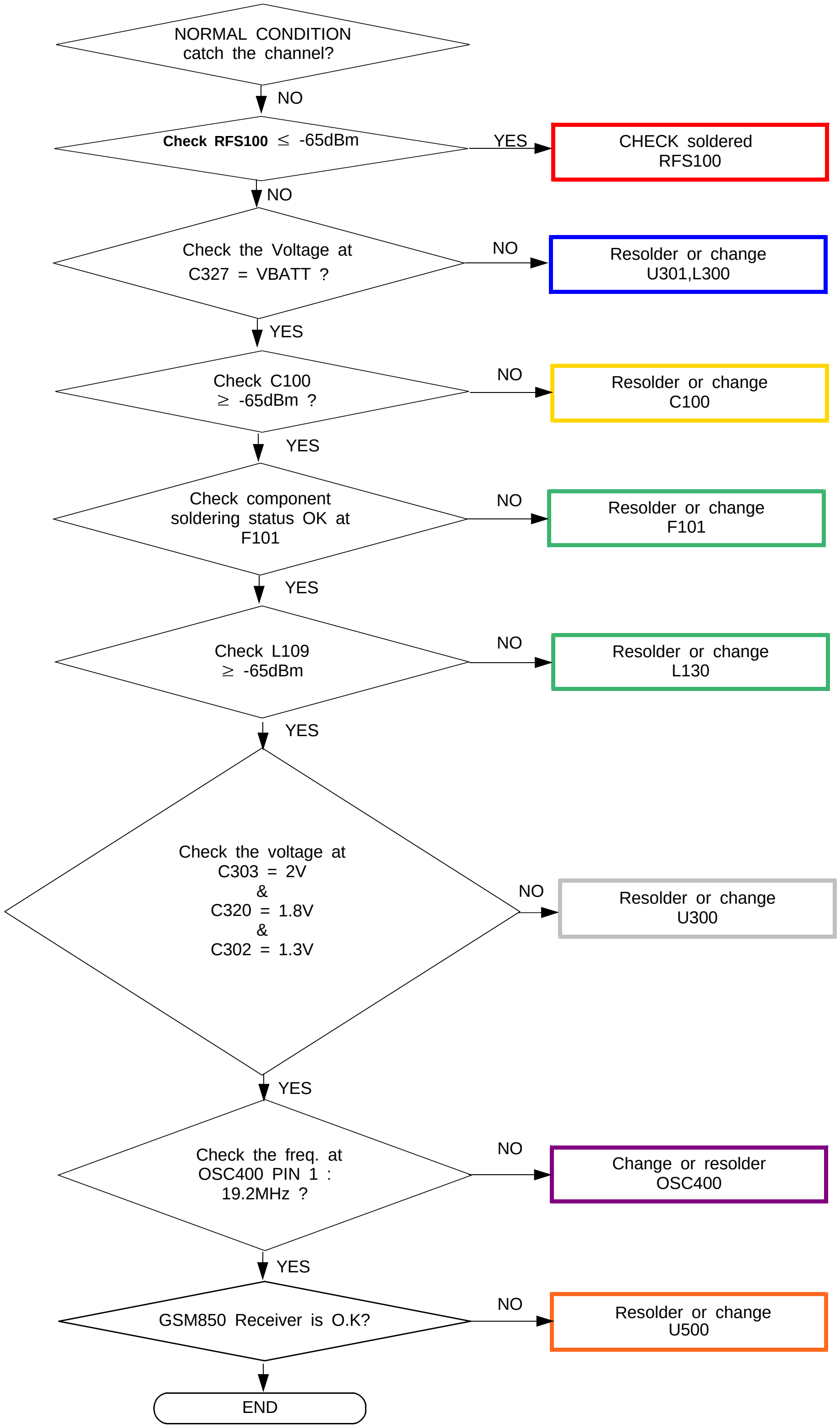
8-3-22. GSM900 RX



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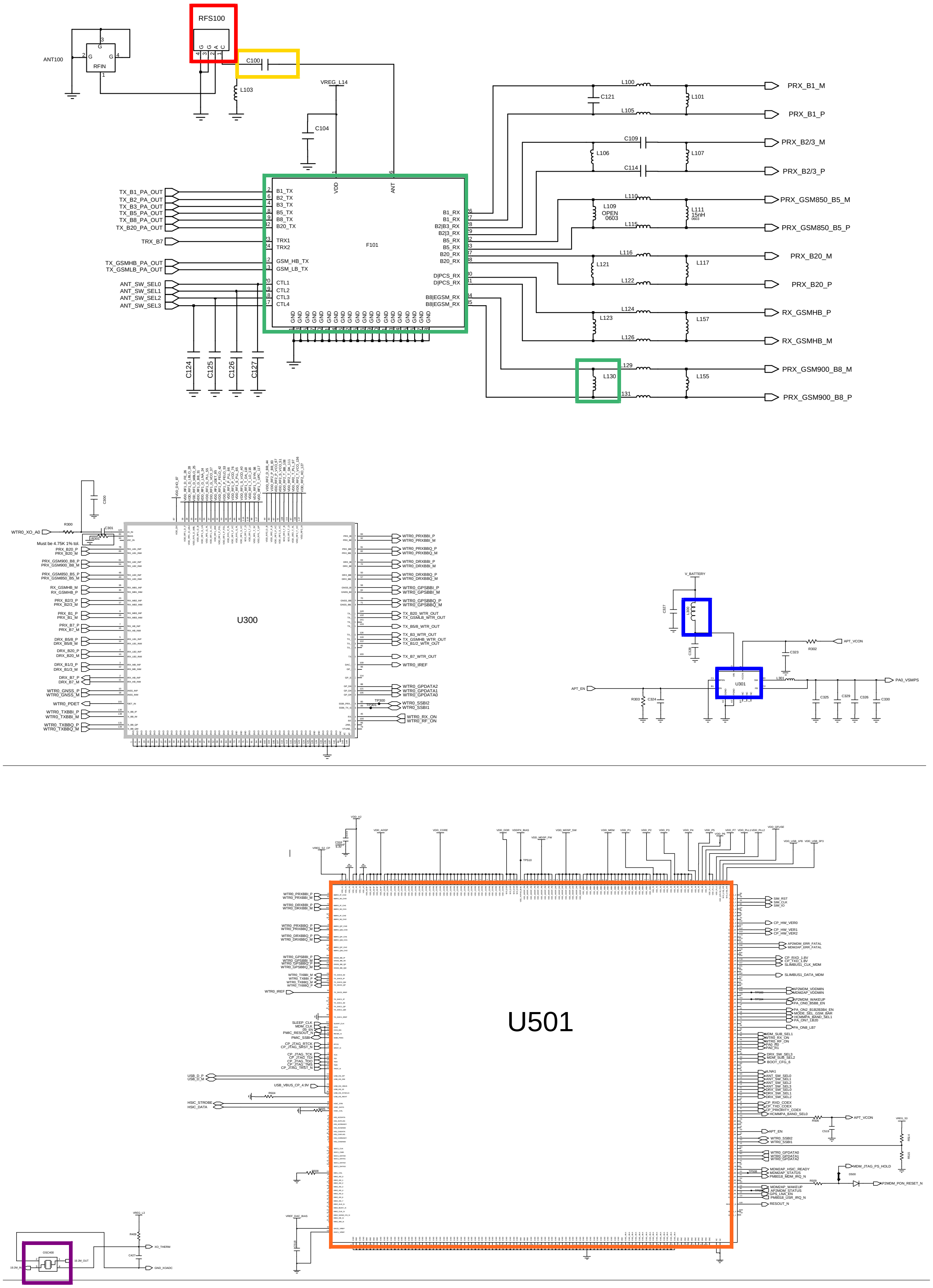

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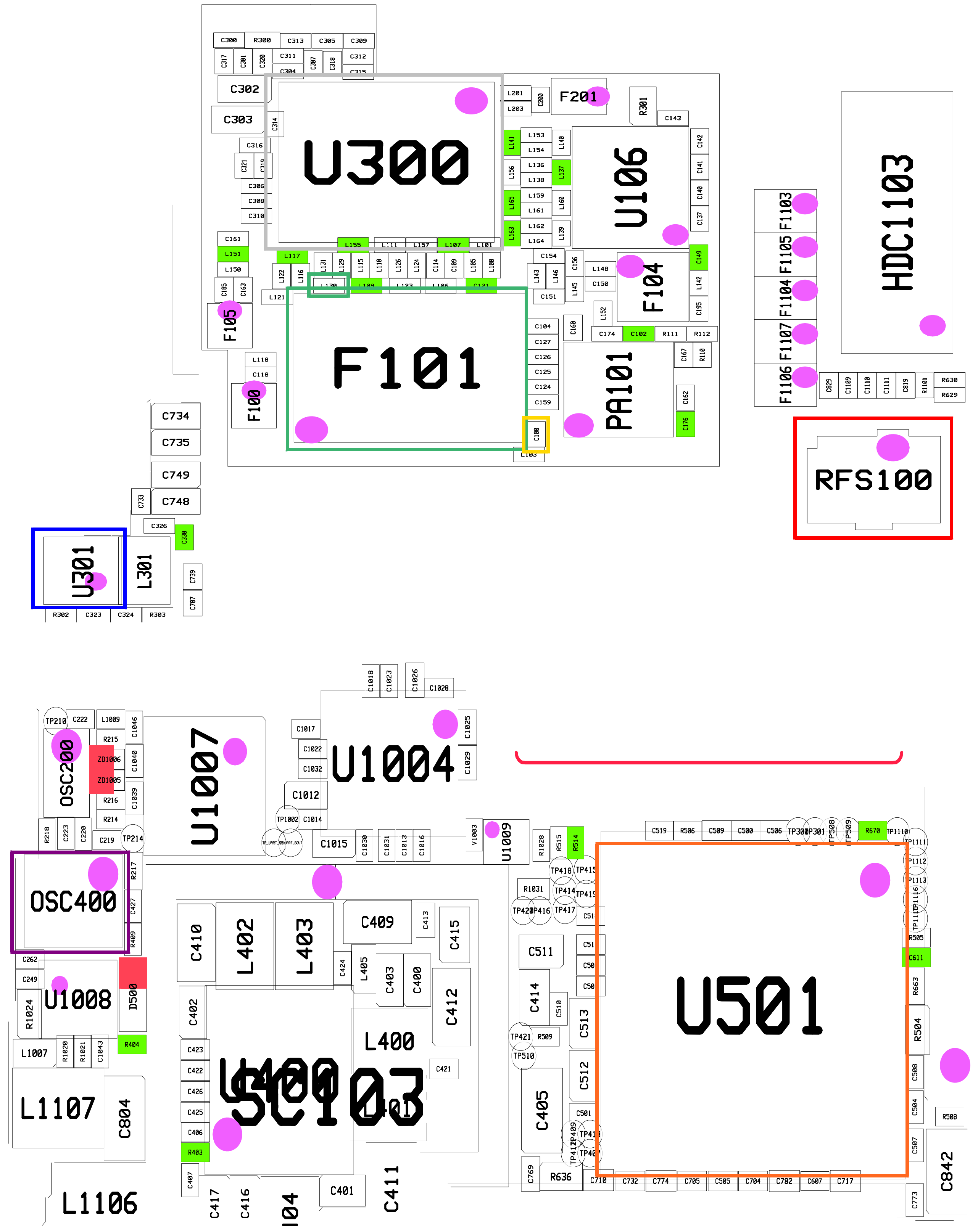

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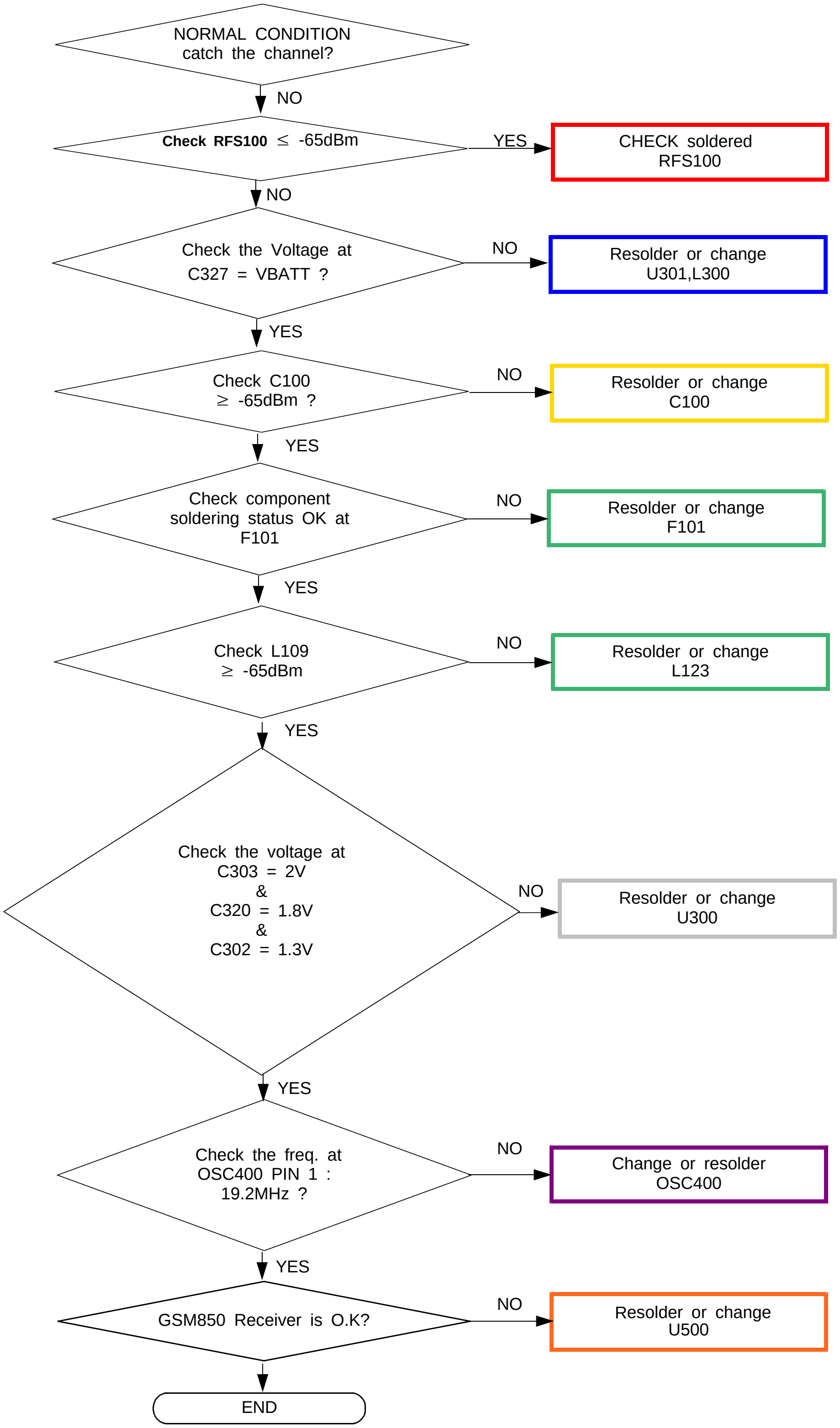
8-3-23. GSM1800/1900 RX



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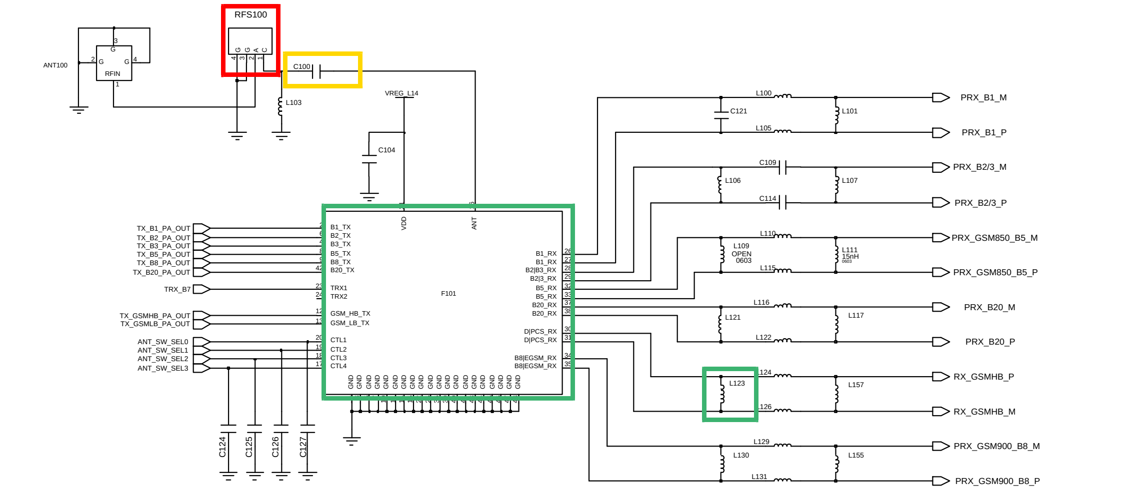

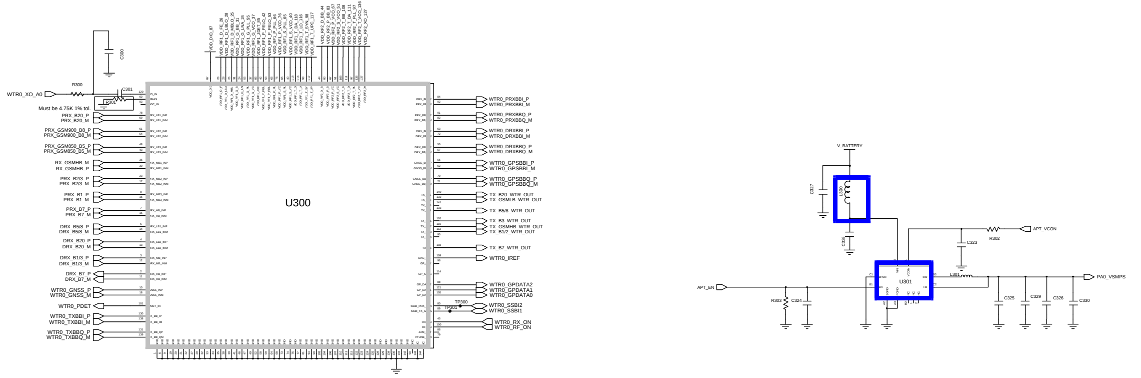

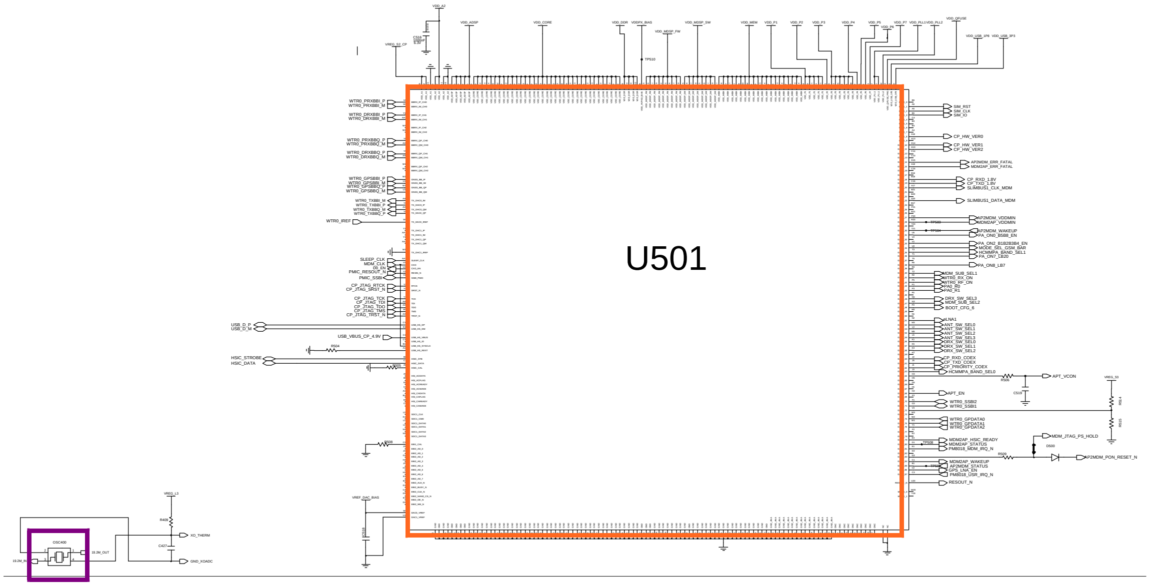

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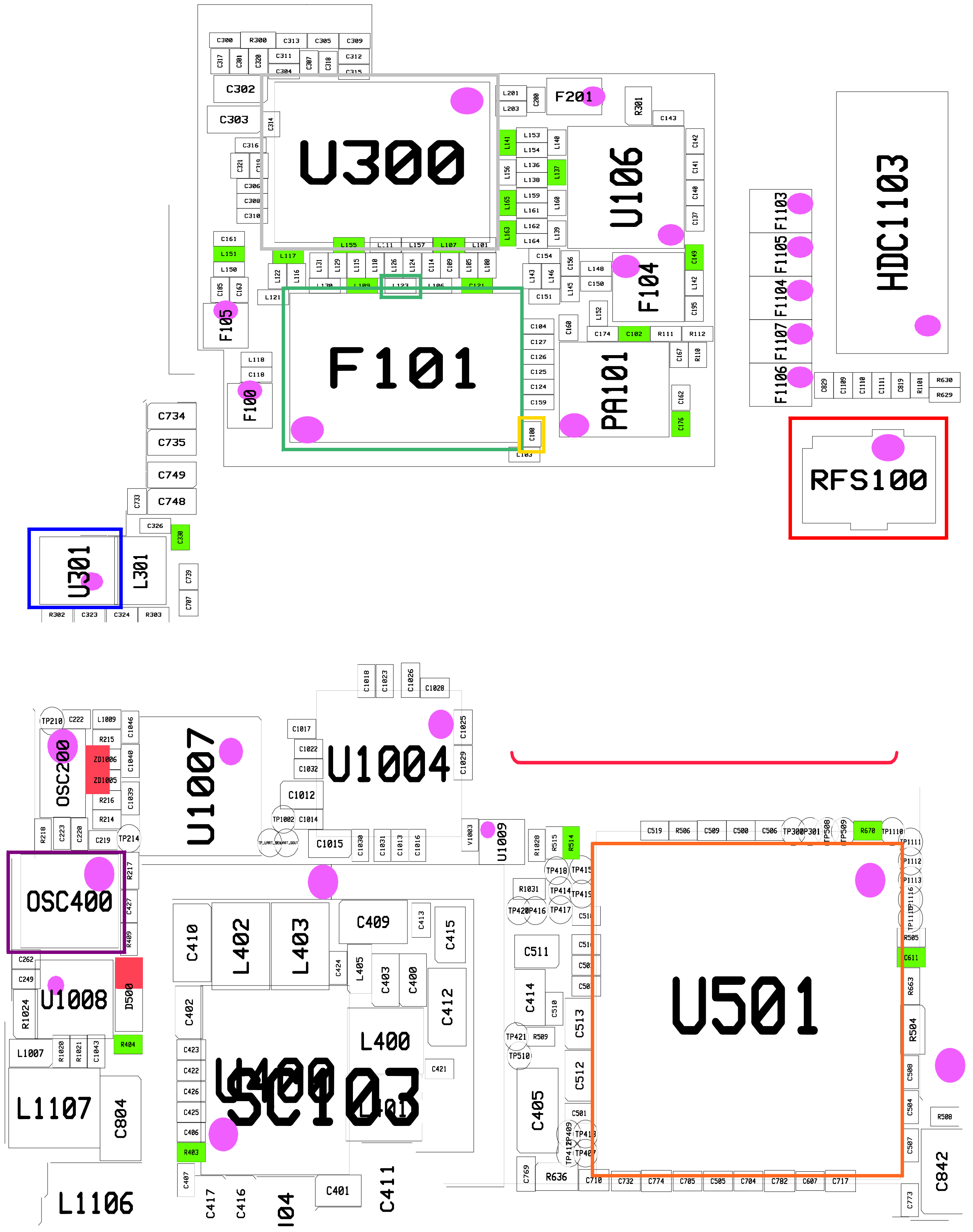

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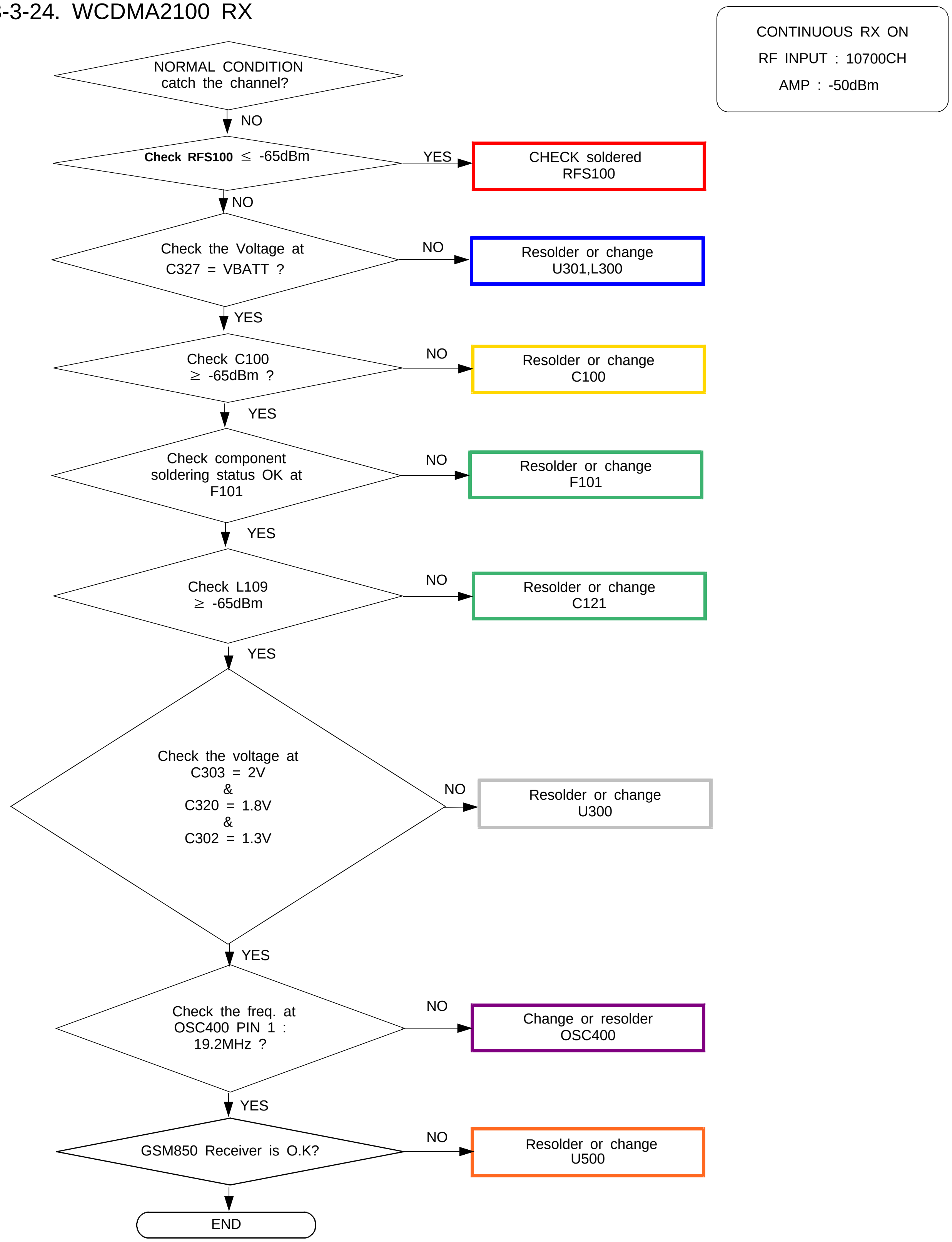
8-3-24. WCDMA2100 RX



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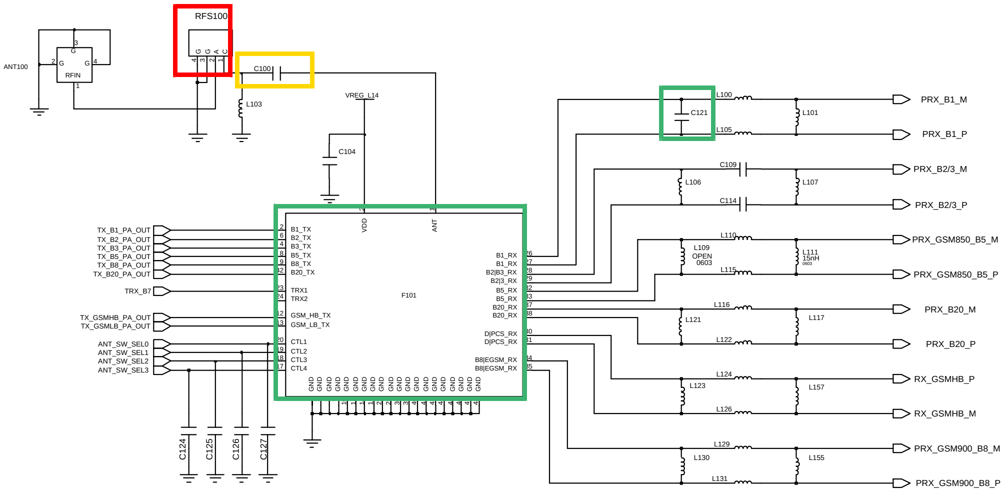

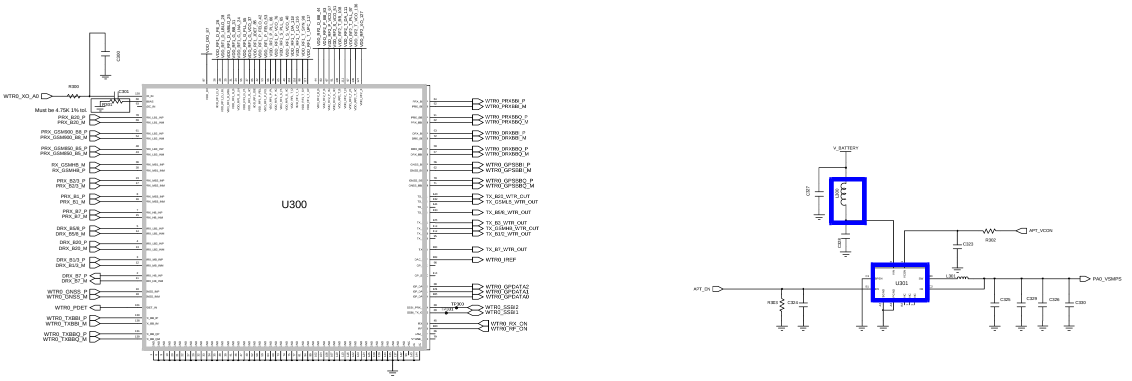

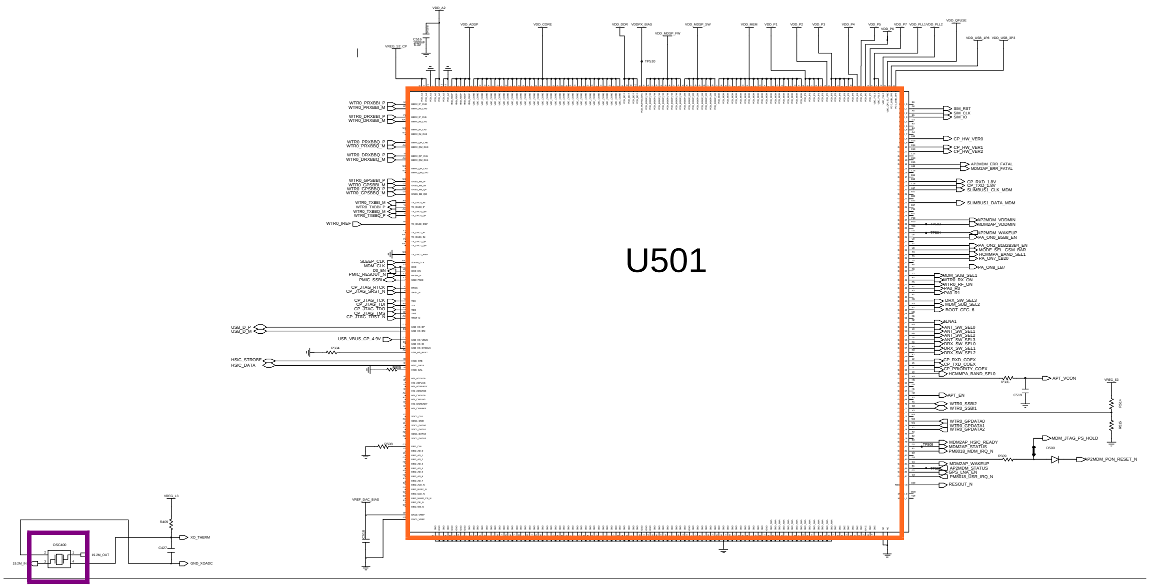

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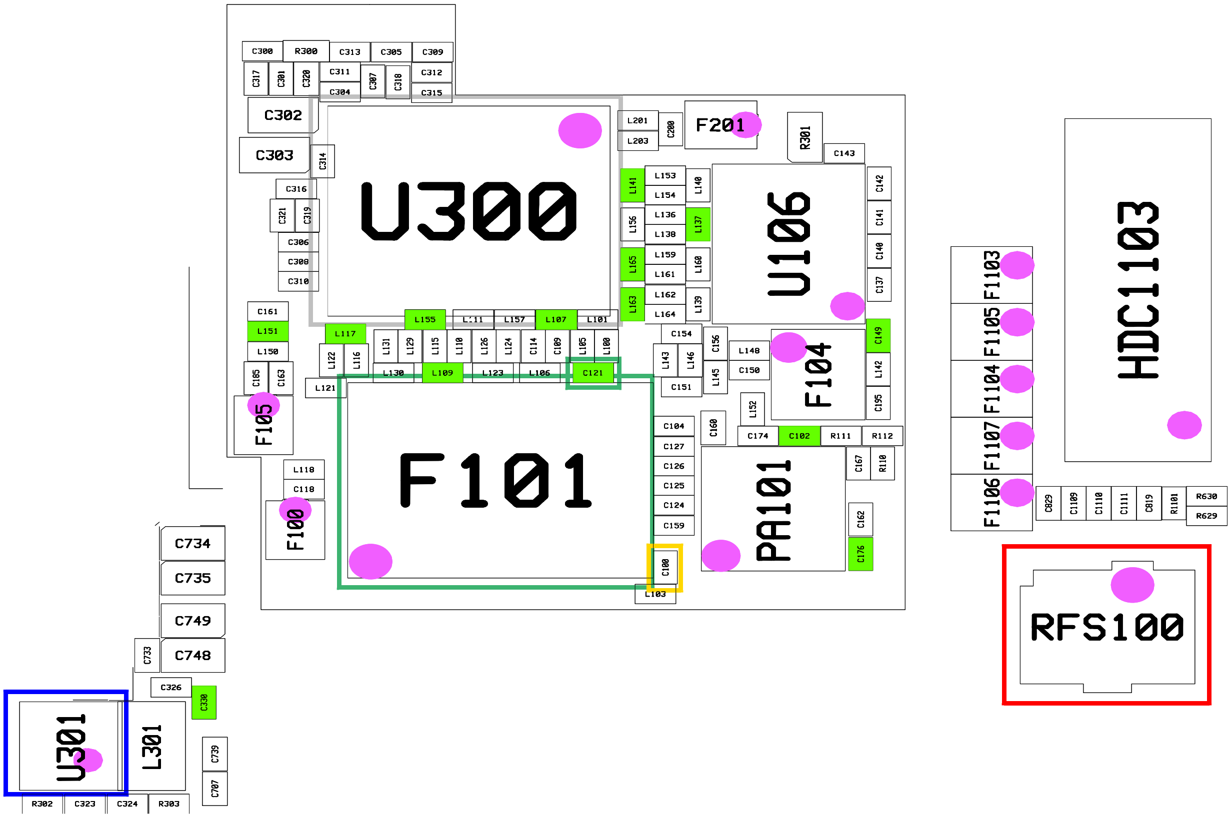

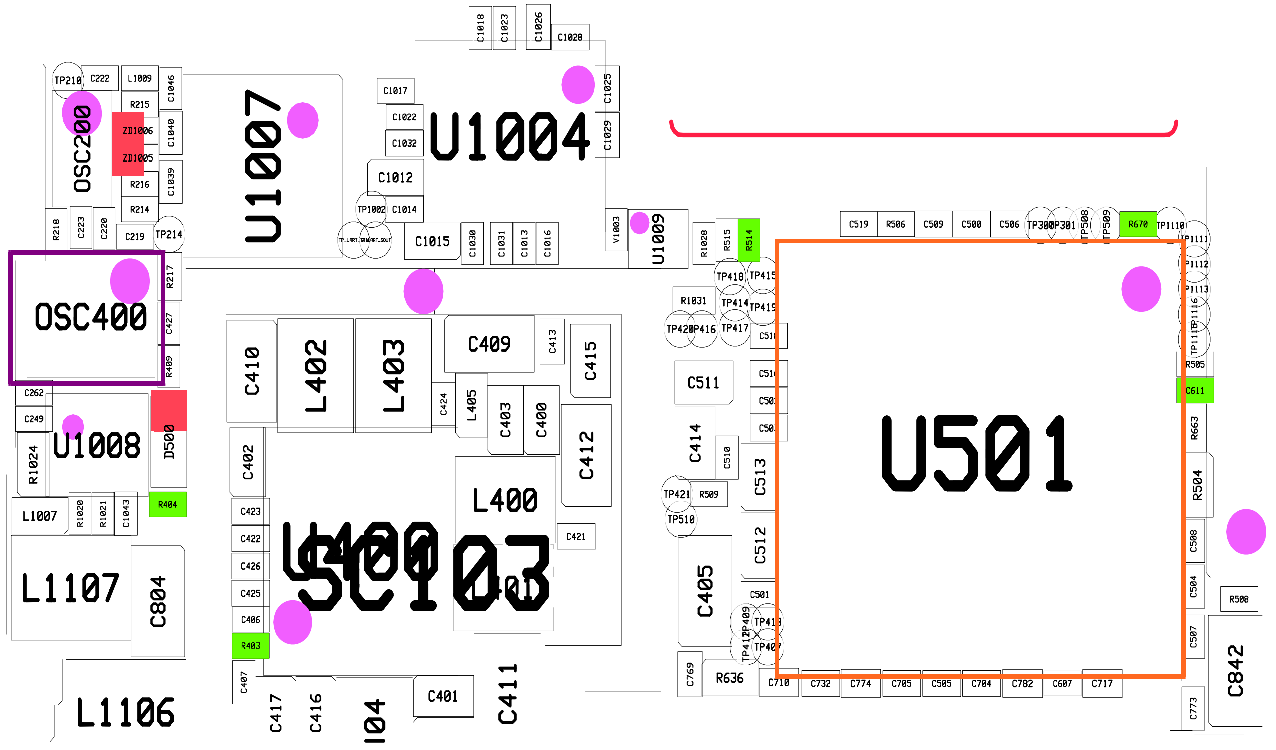

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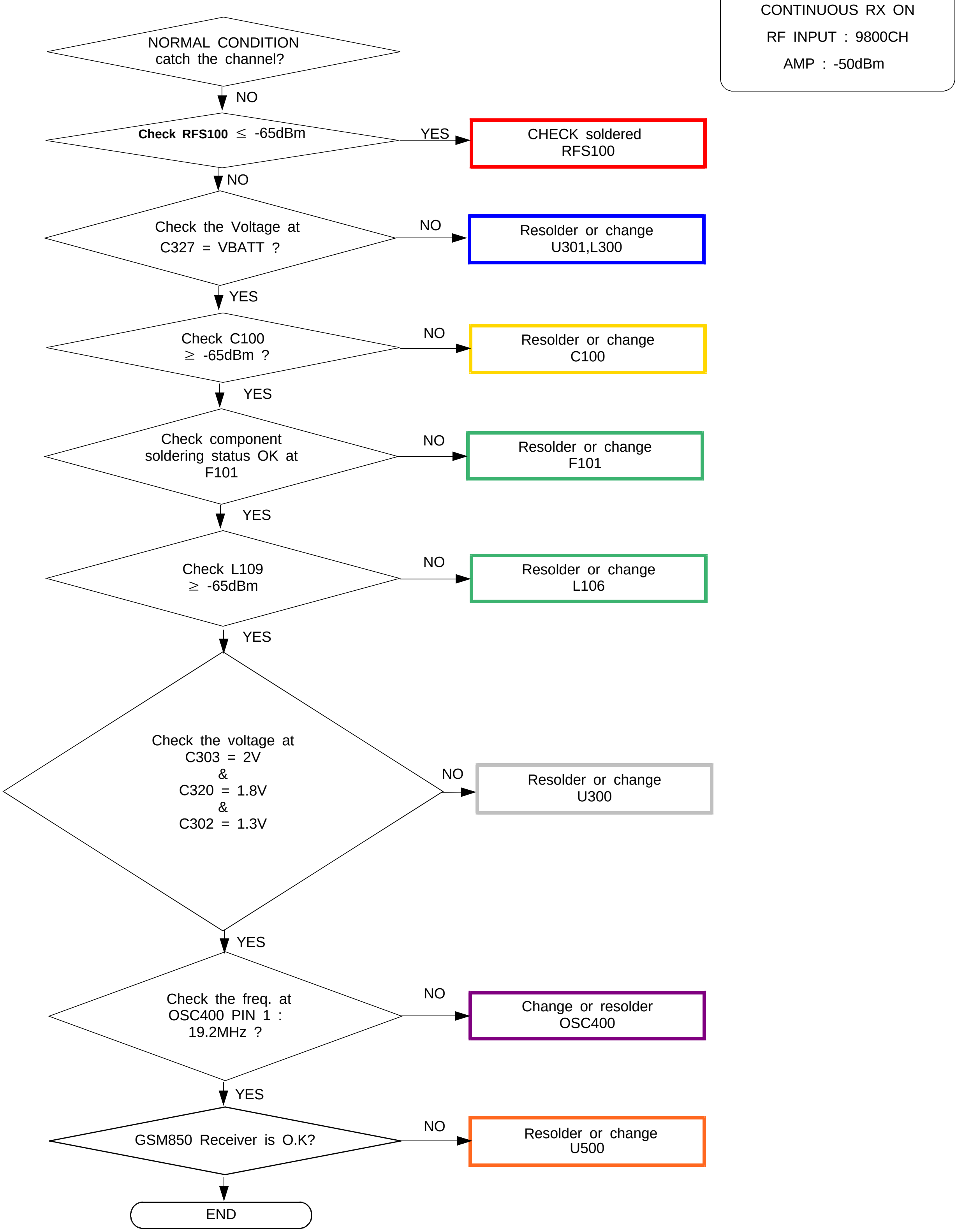
8-3-25. WCDMA1900 RX



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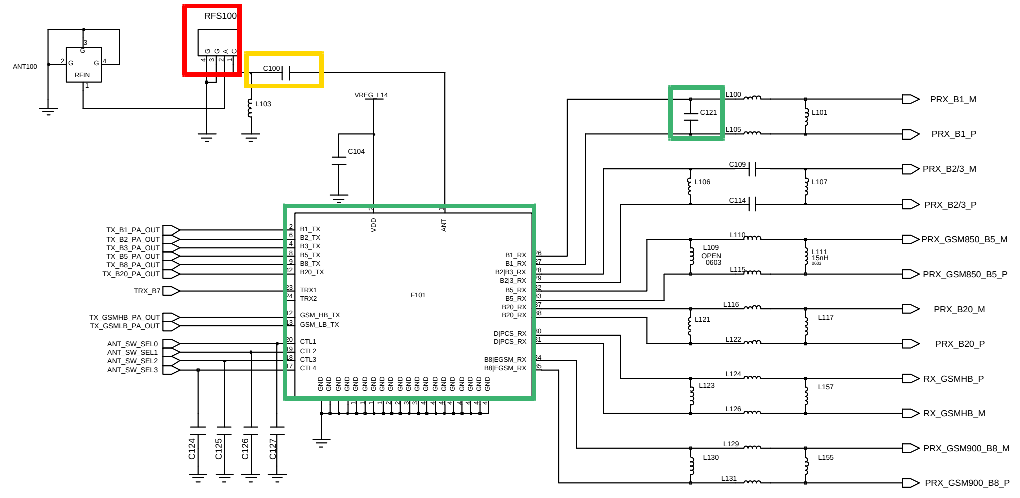

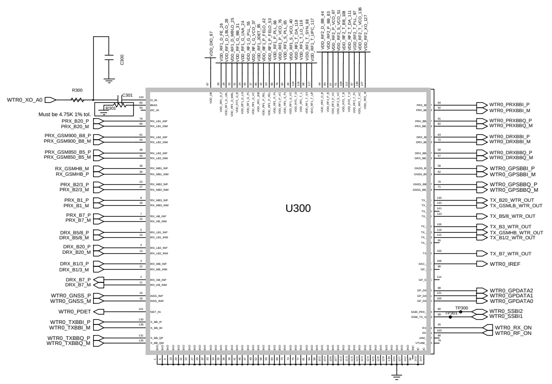

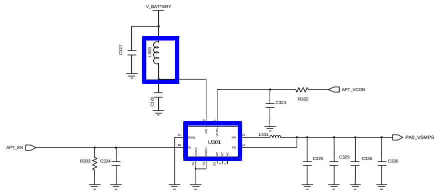

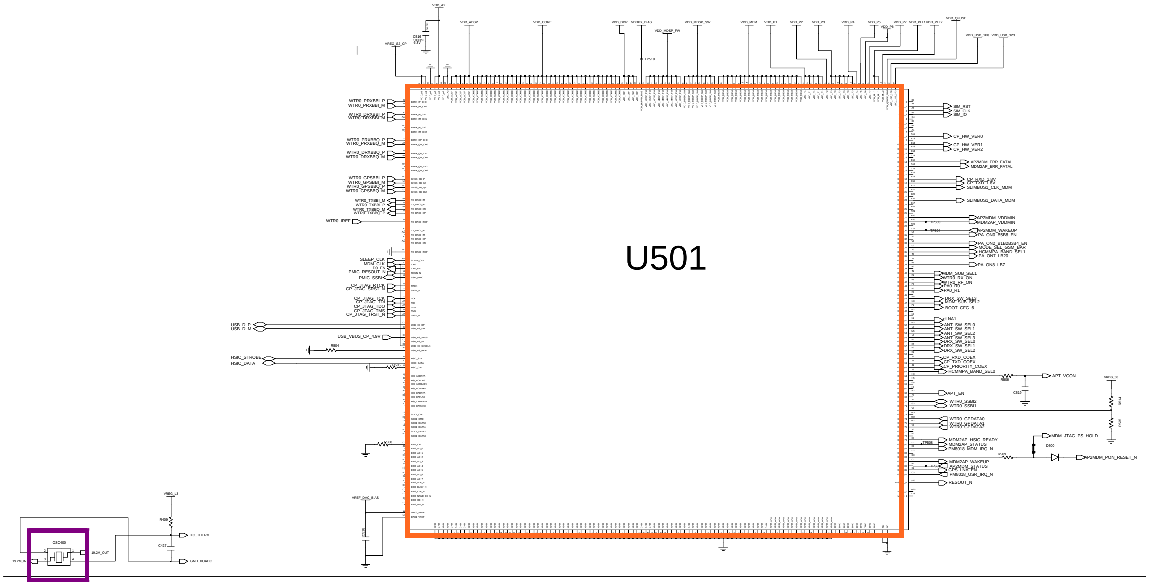

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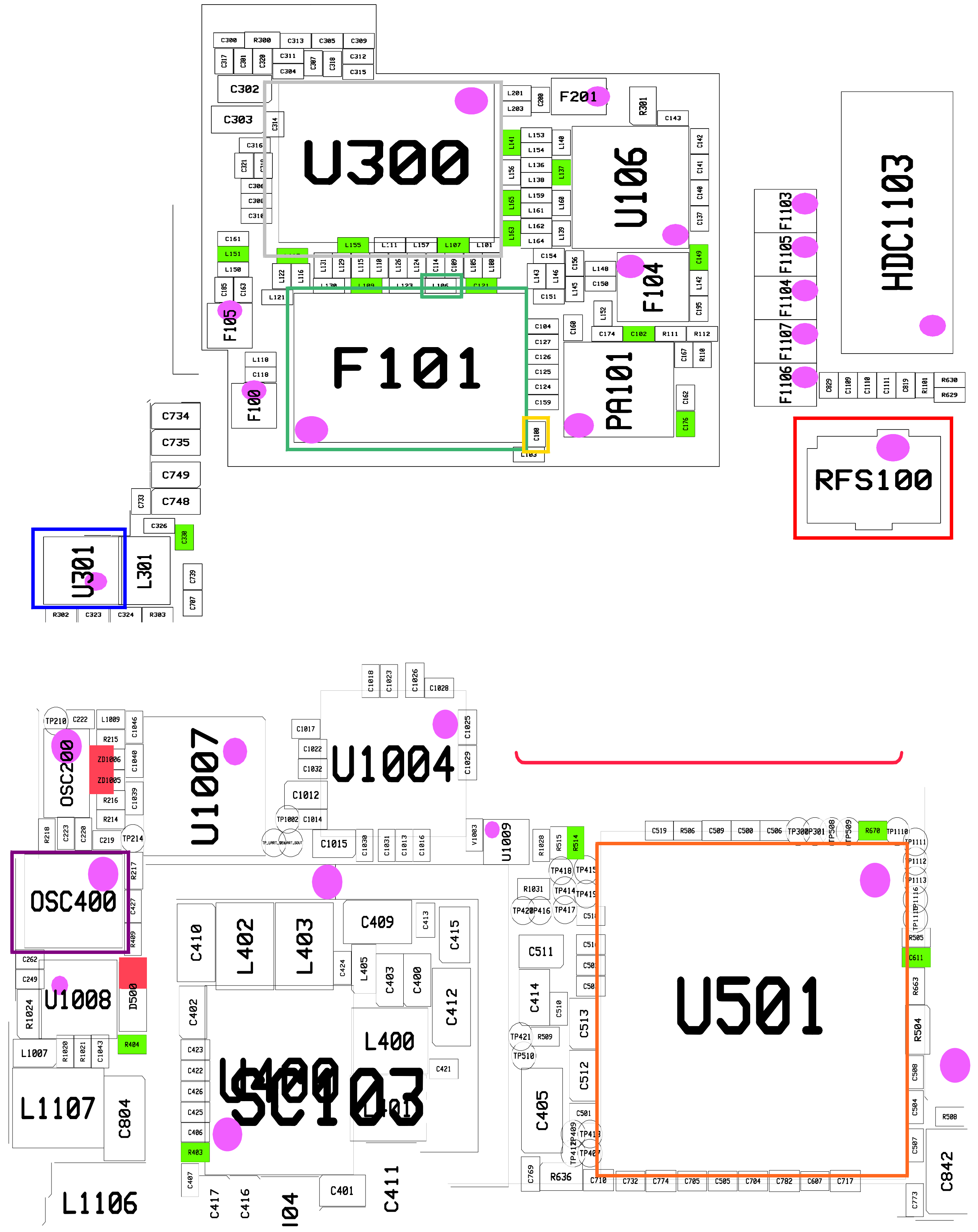

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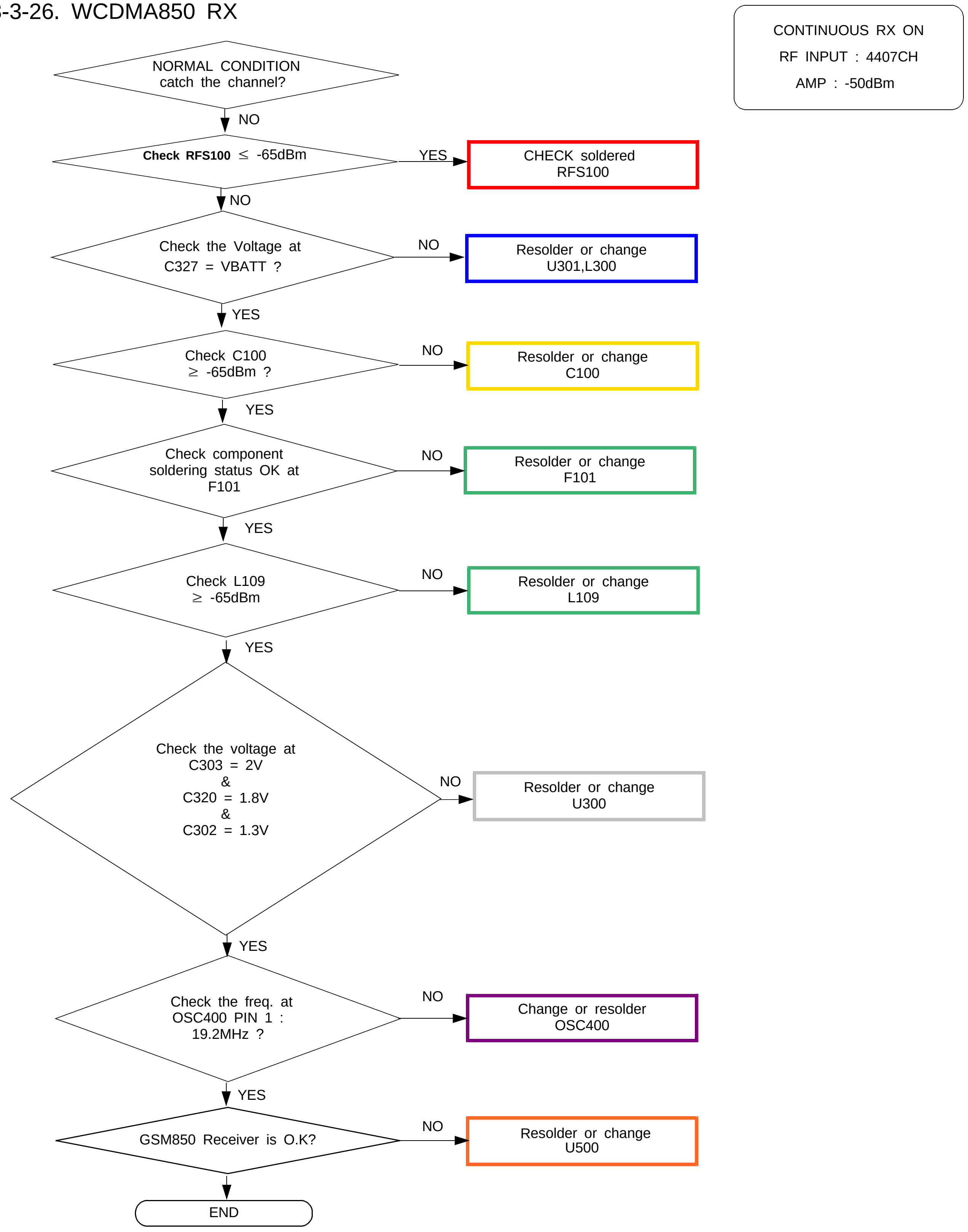
8-3-26. WCDMA850 RX



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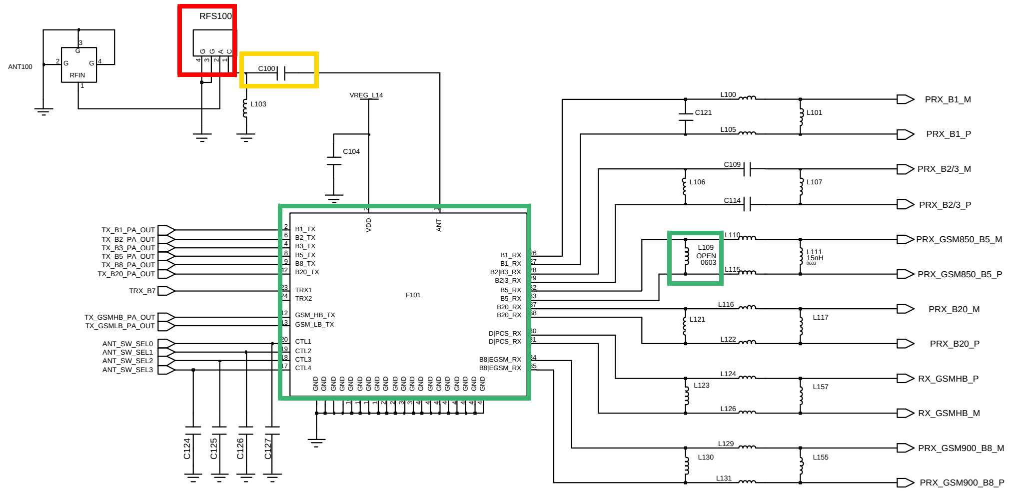

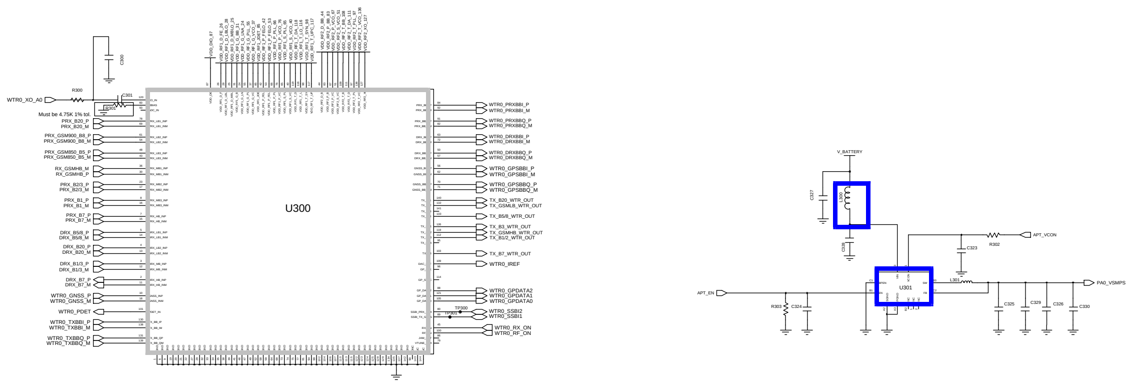

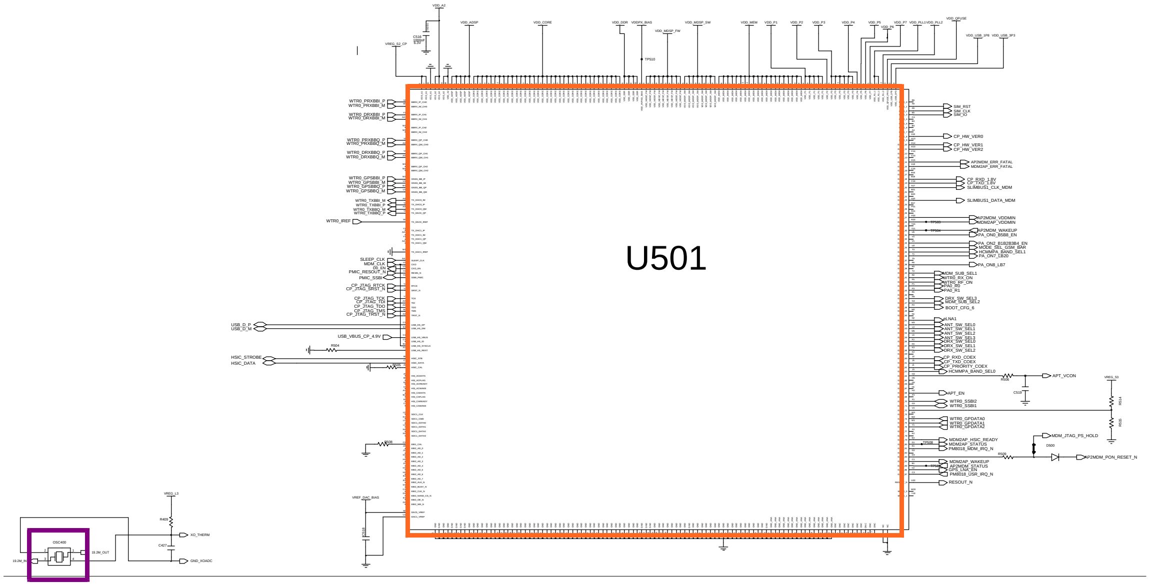

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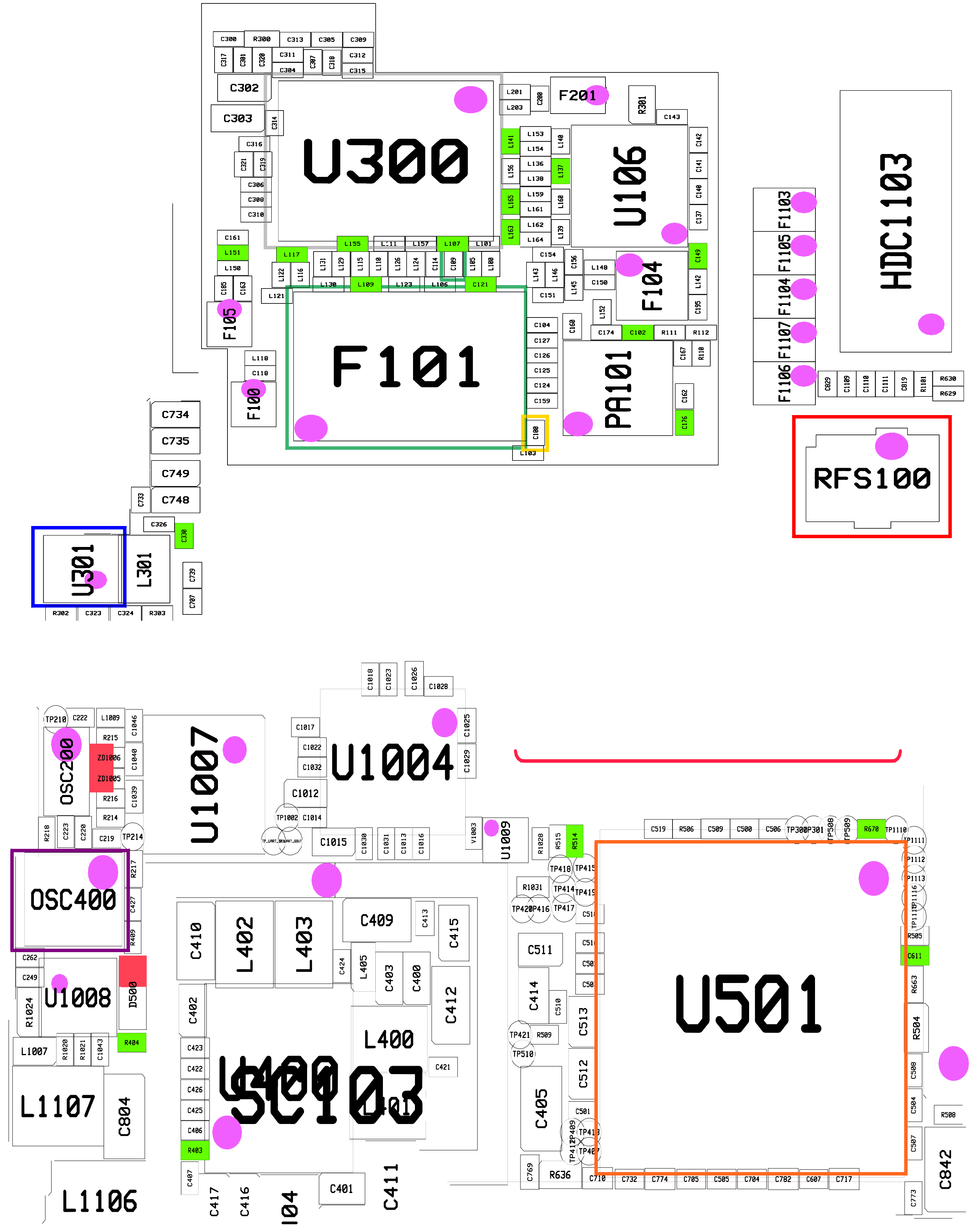

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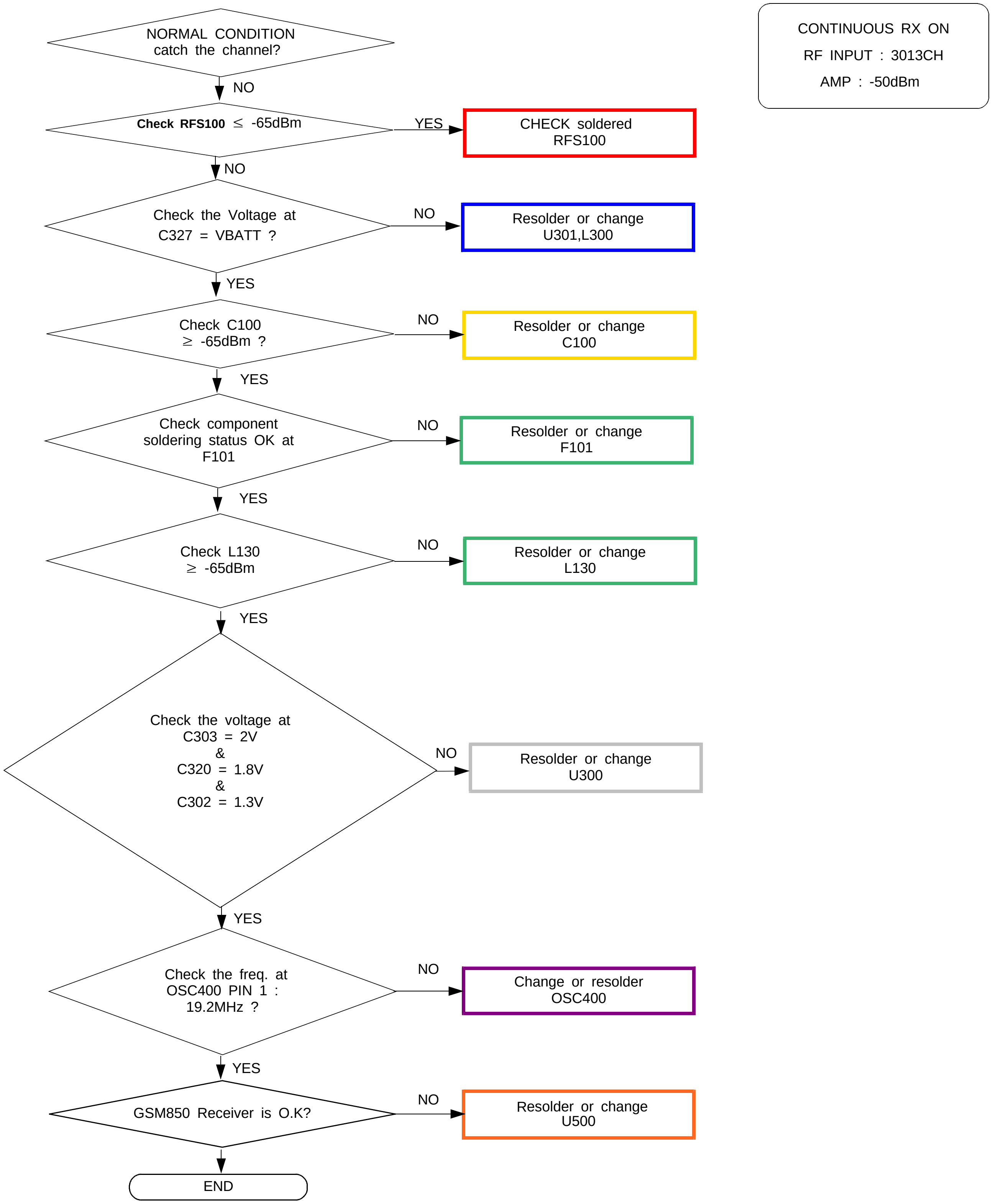
8-3-27. WCDMA900 RX



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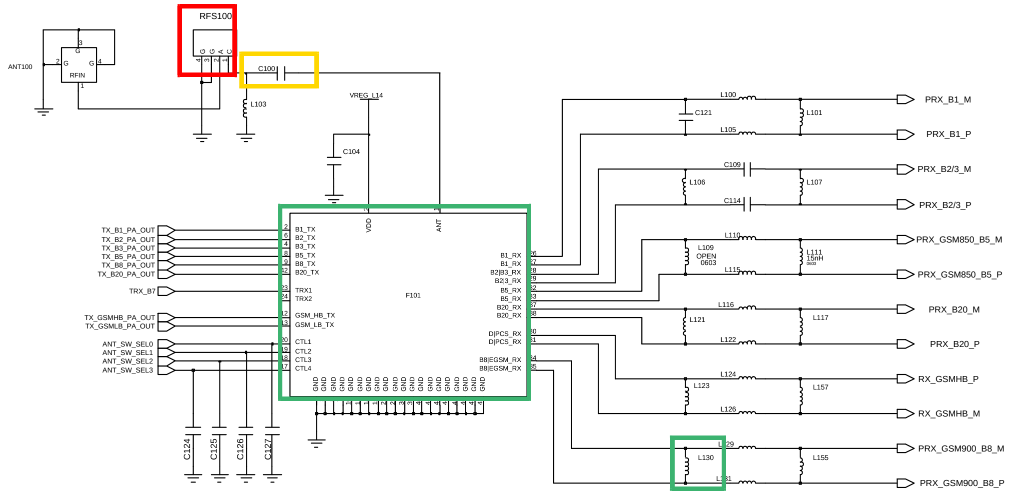

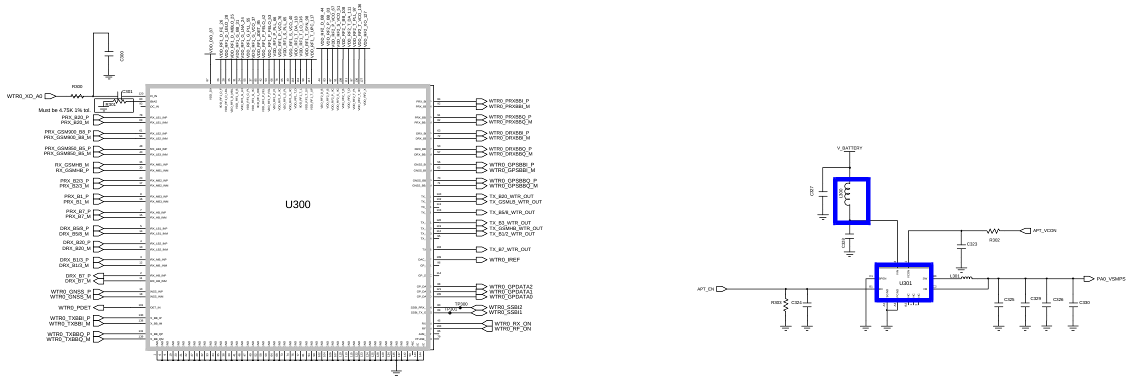

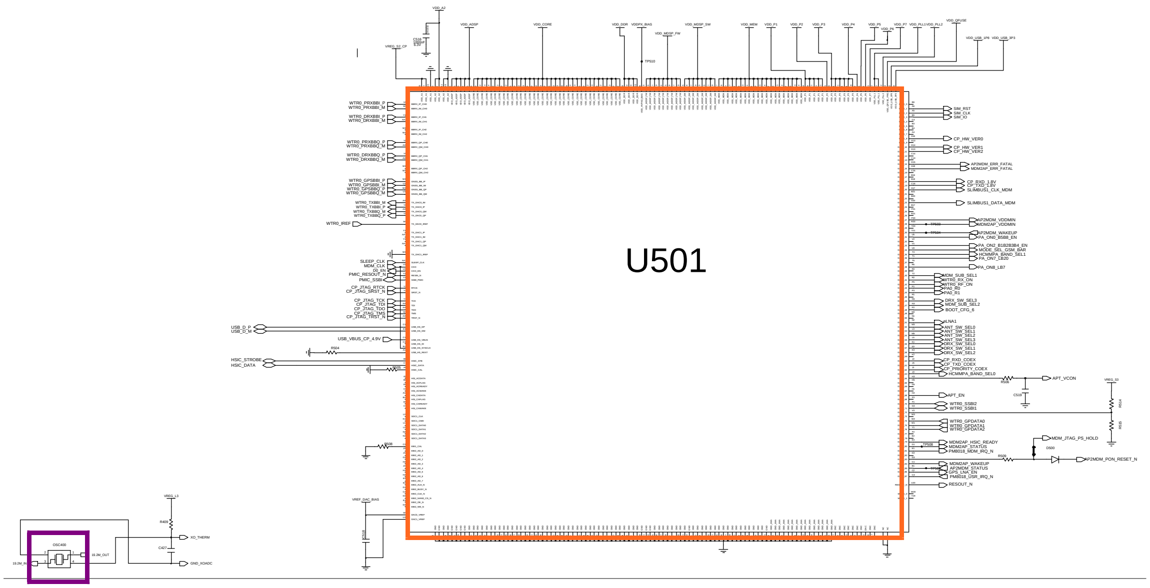

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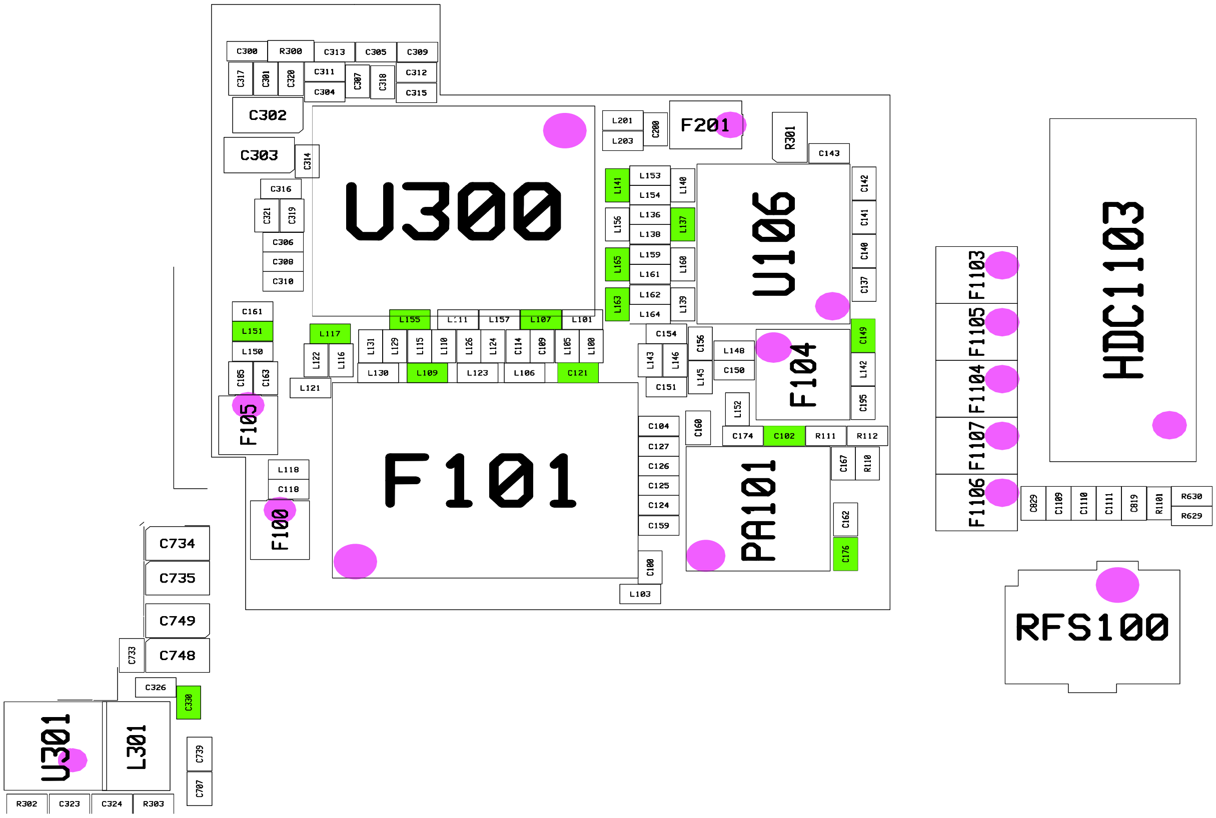

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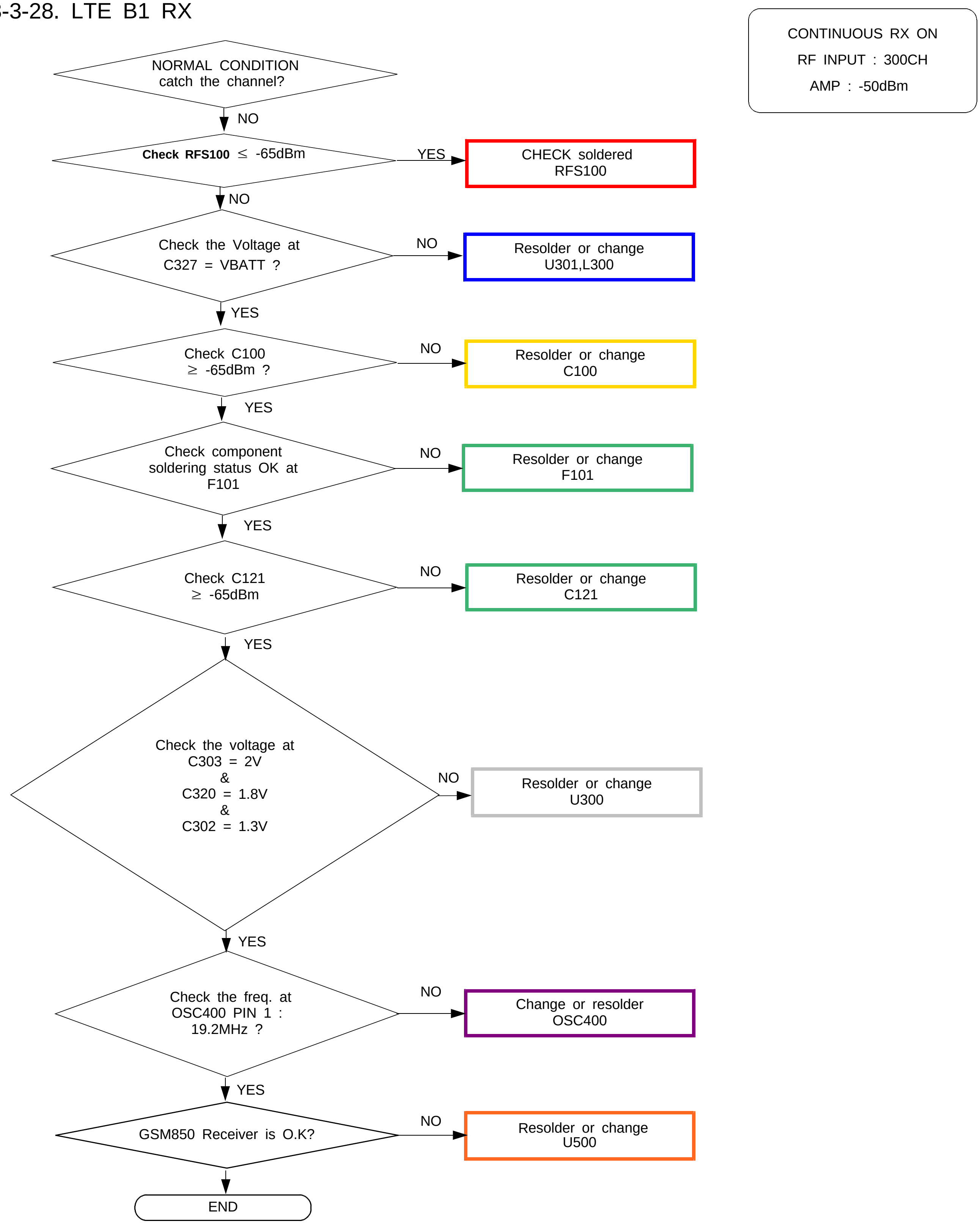
8-3-28. LTE B1 RX



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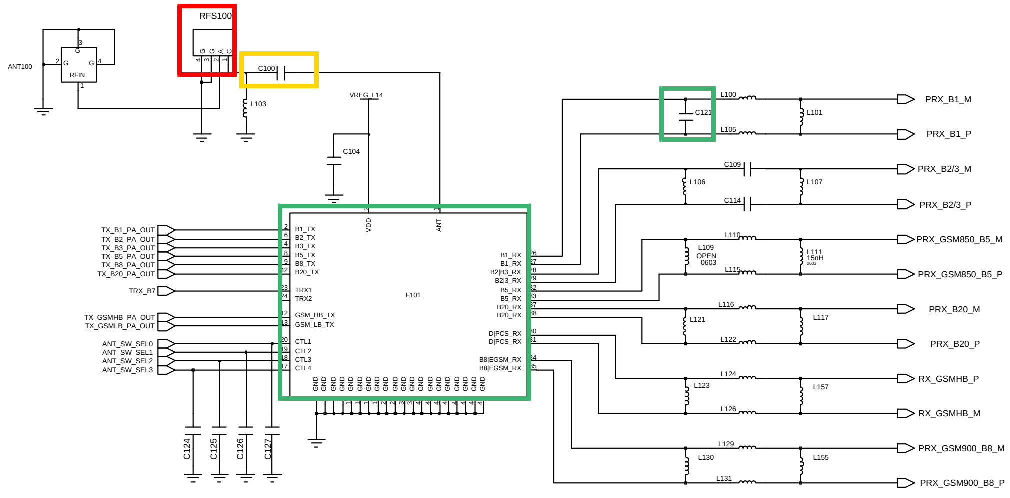

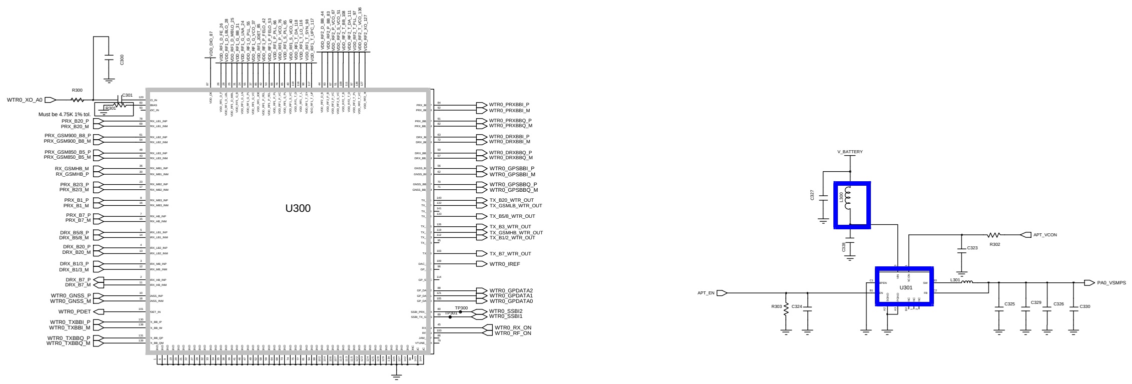

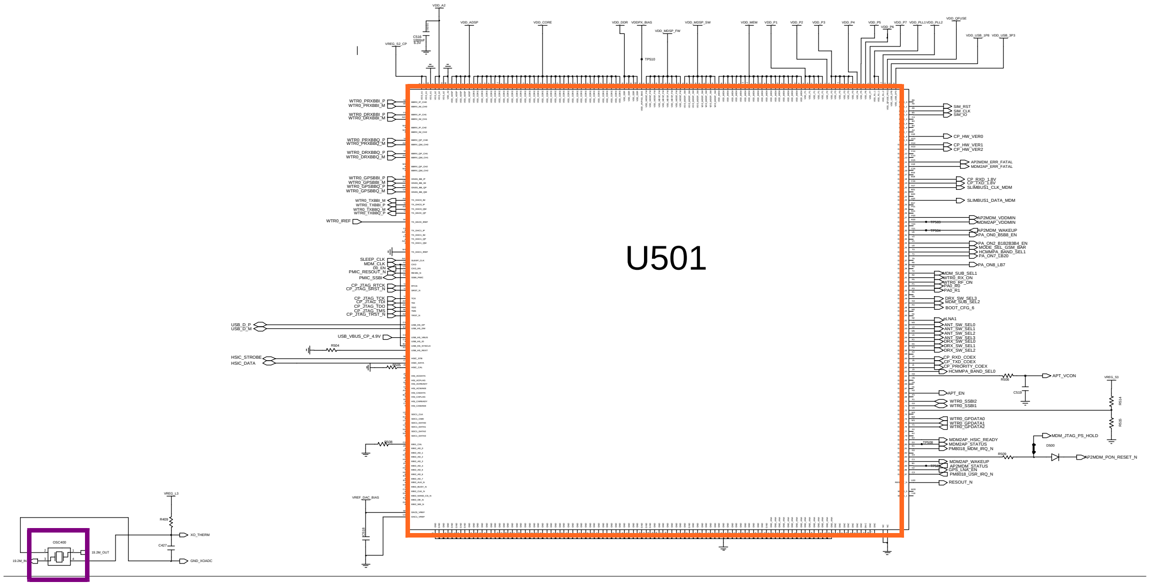

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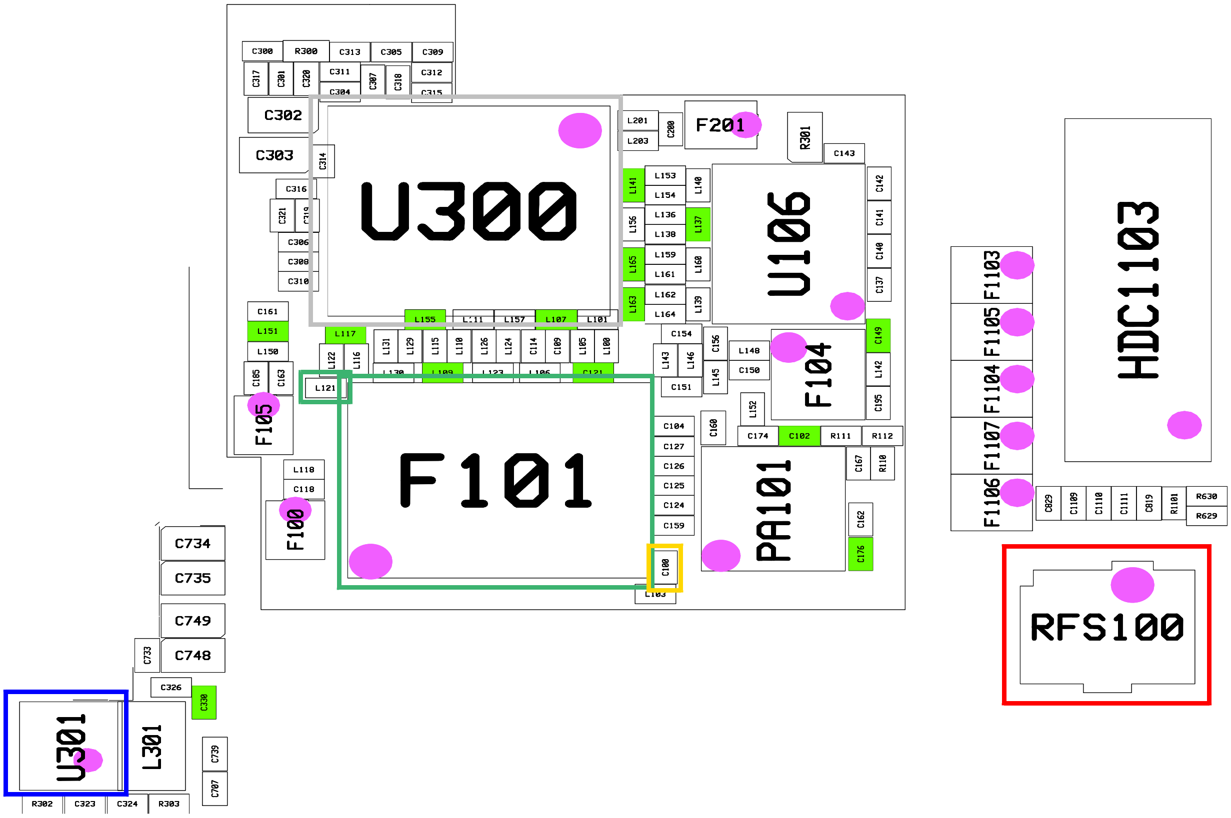

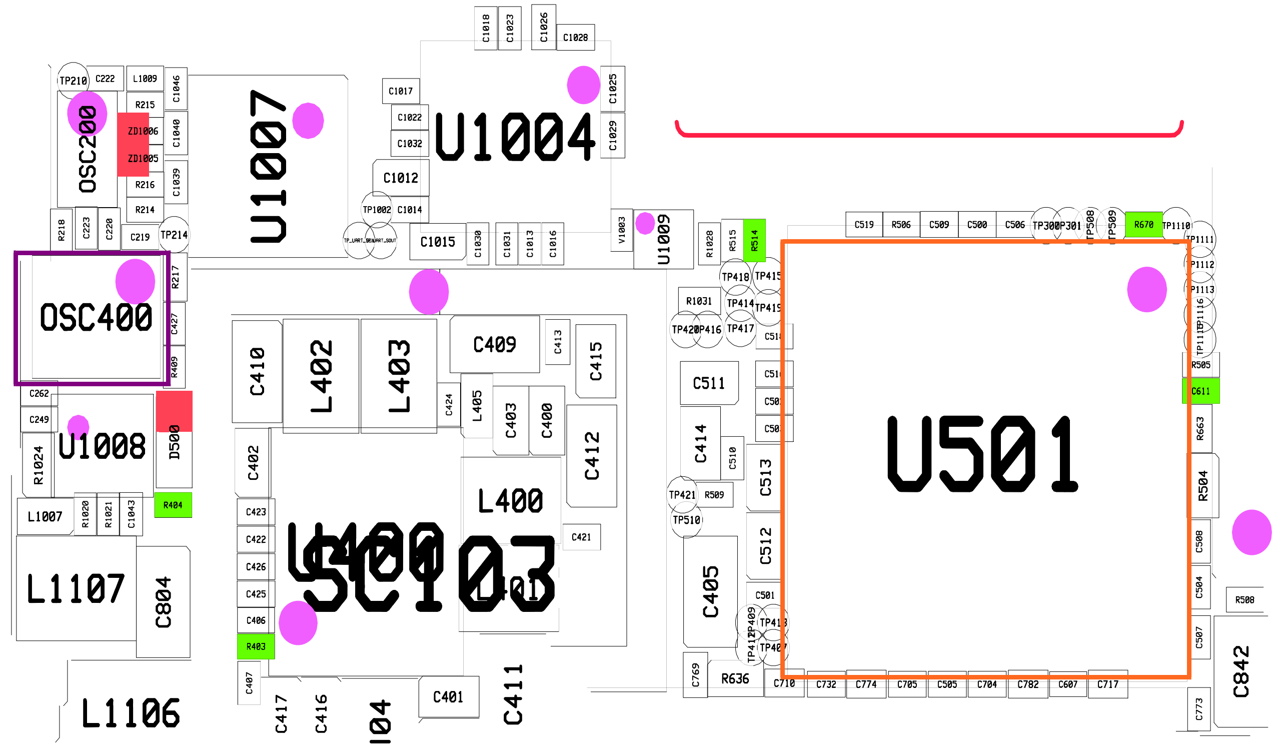

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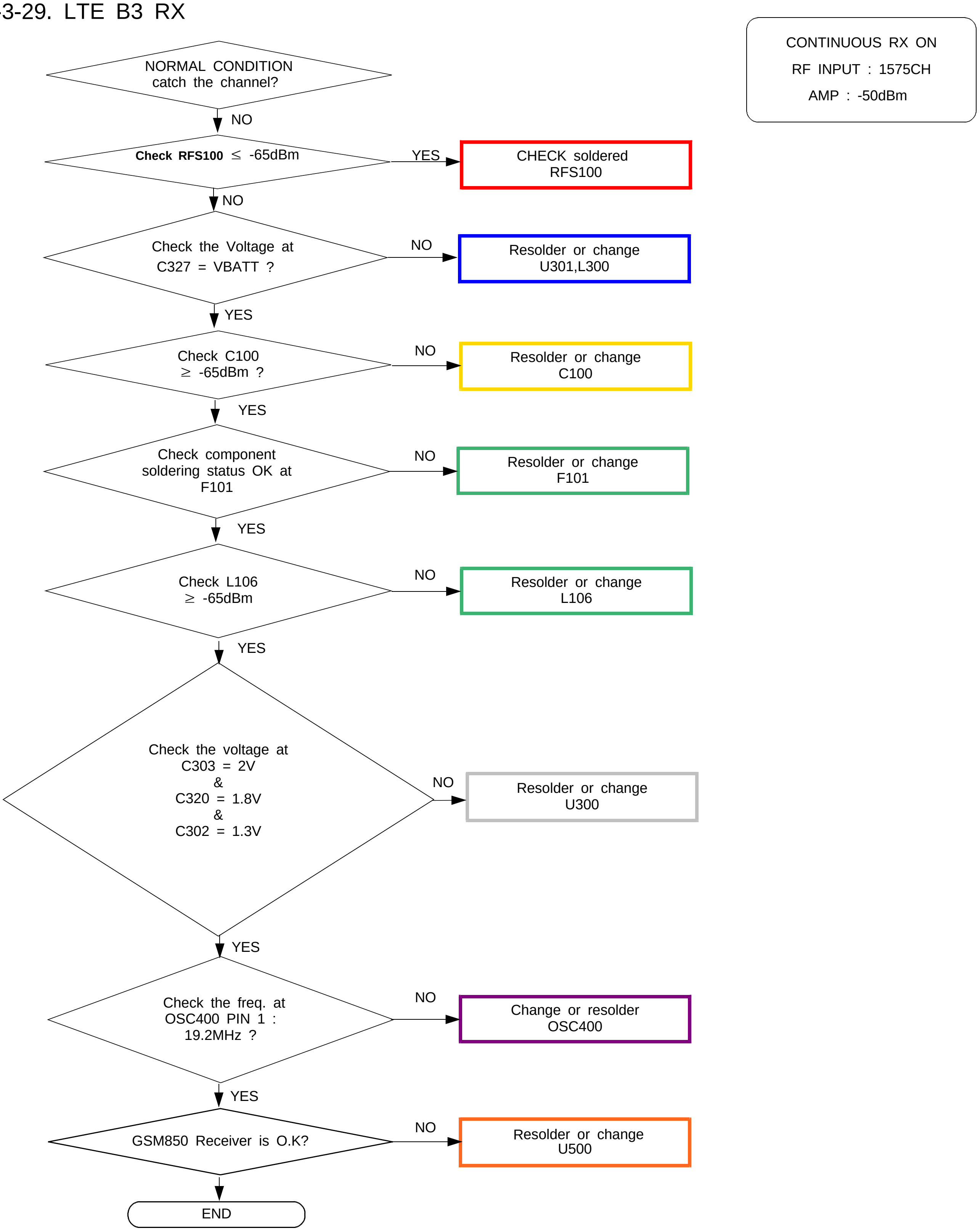
8-3-29. LTE B3 RX



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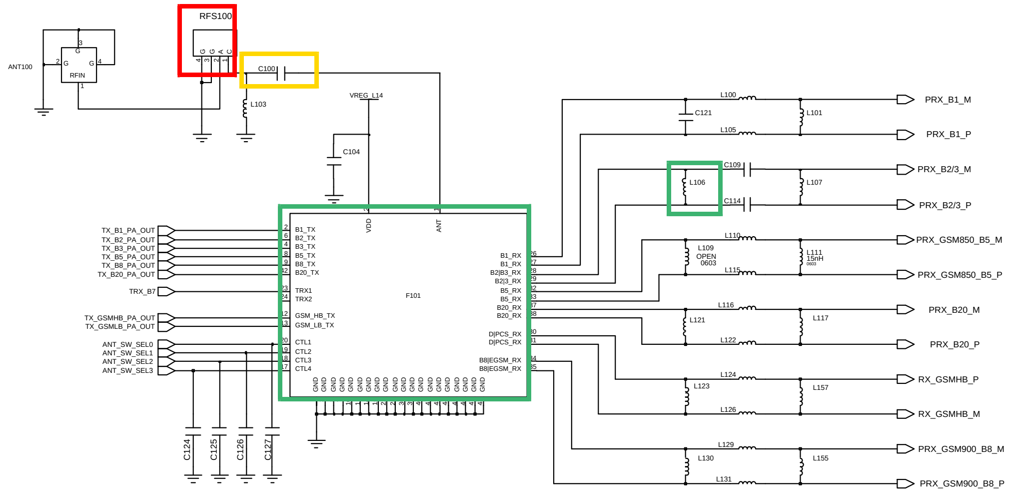

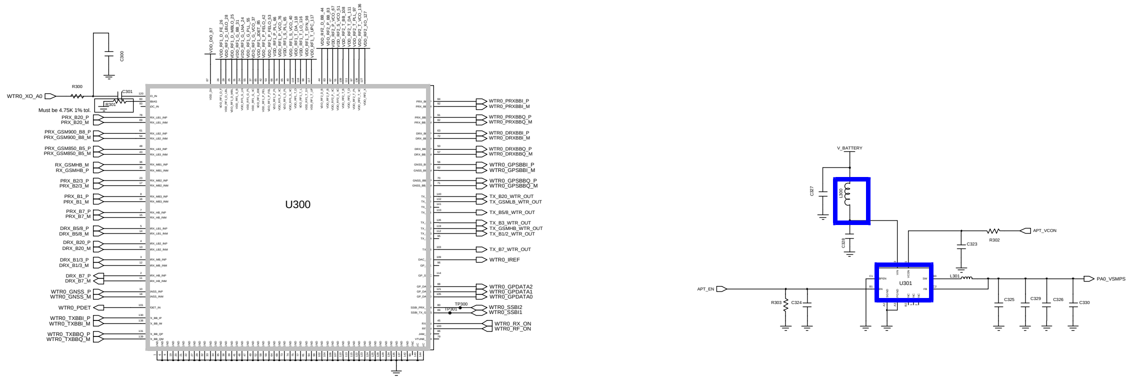

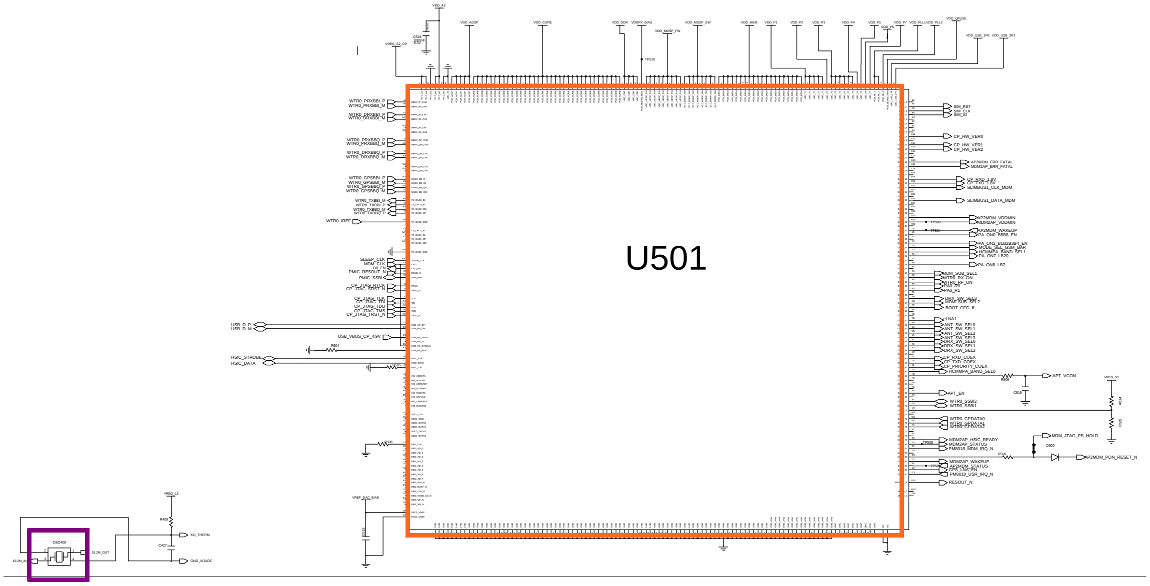

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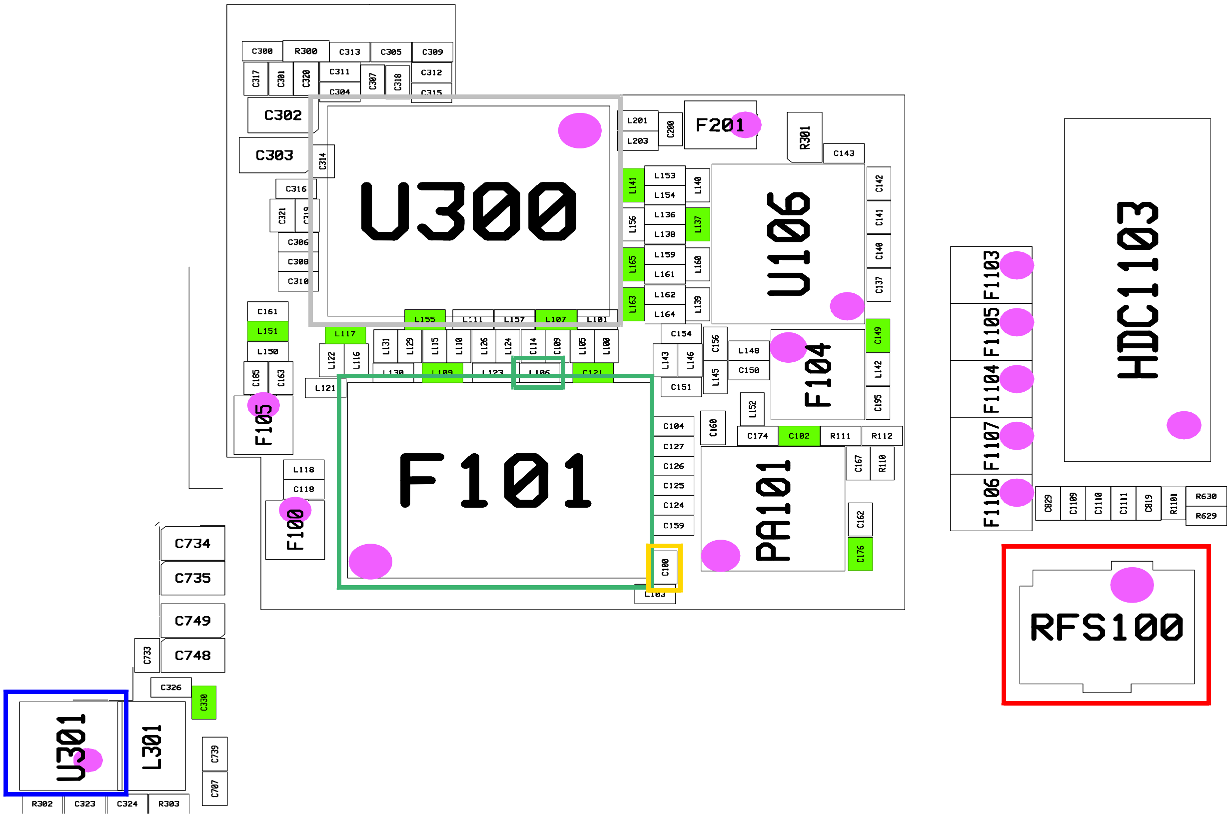

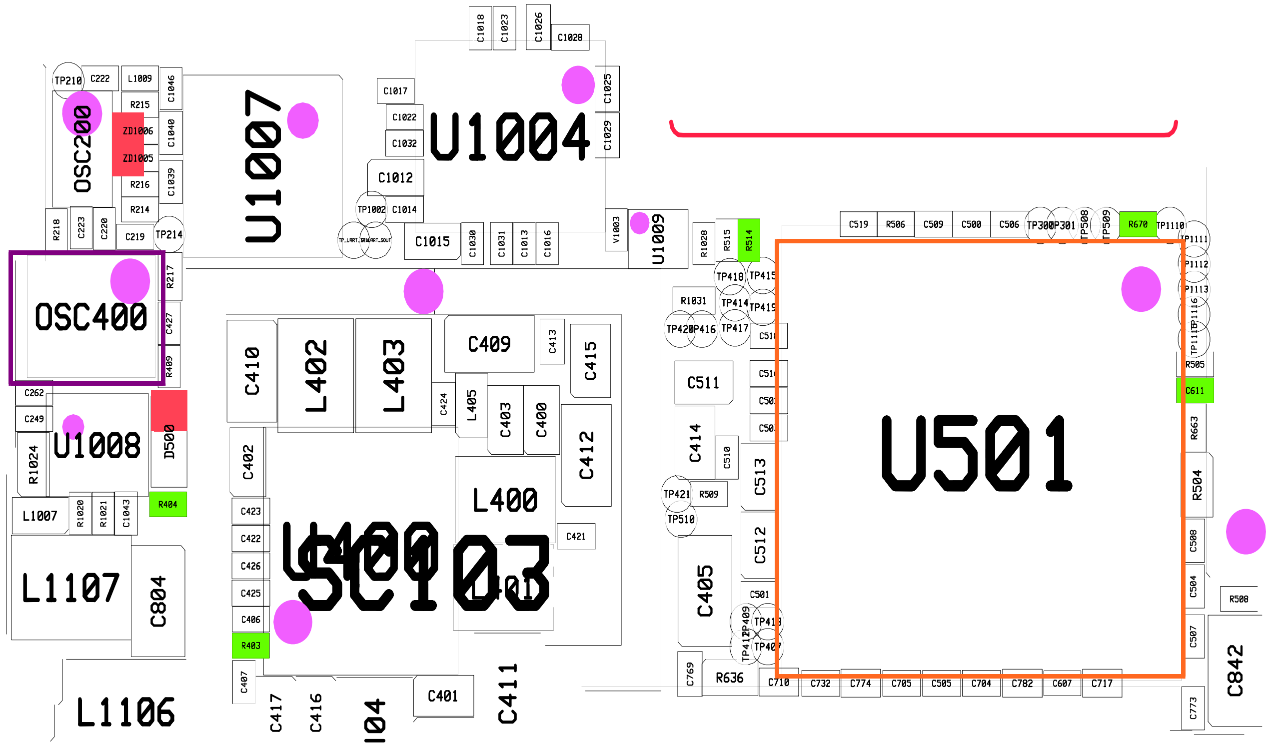

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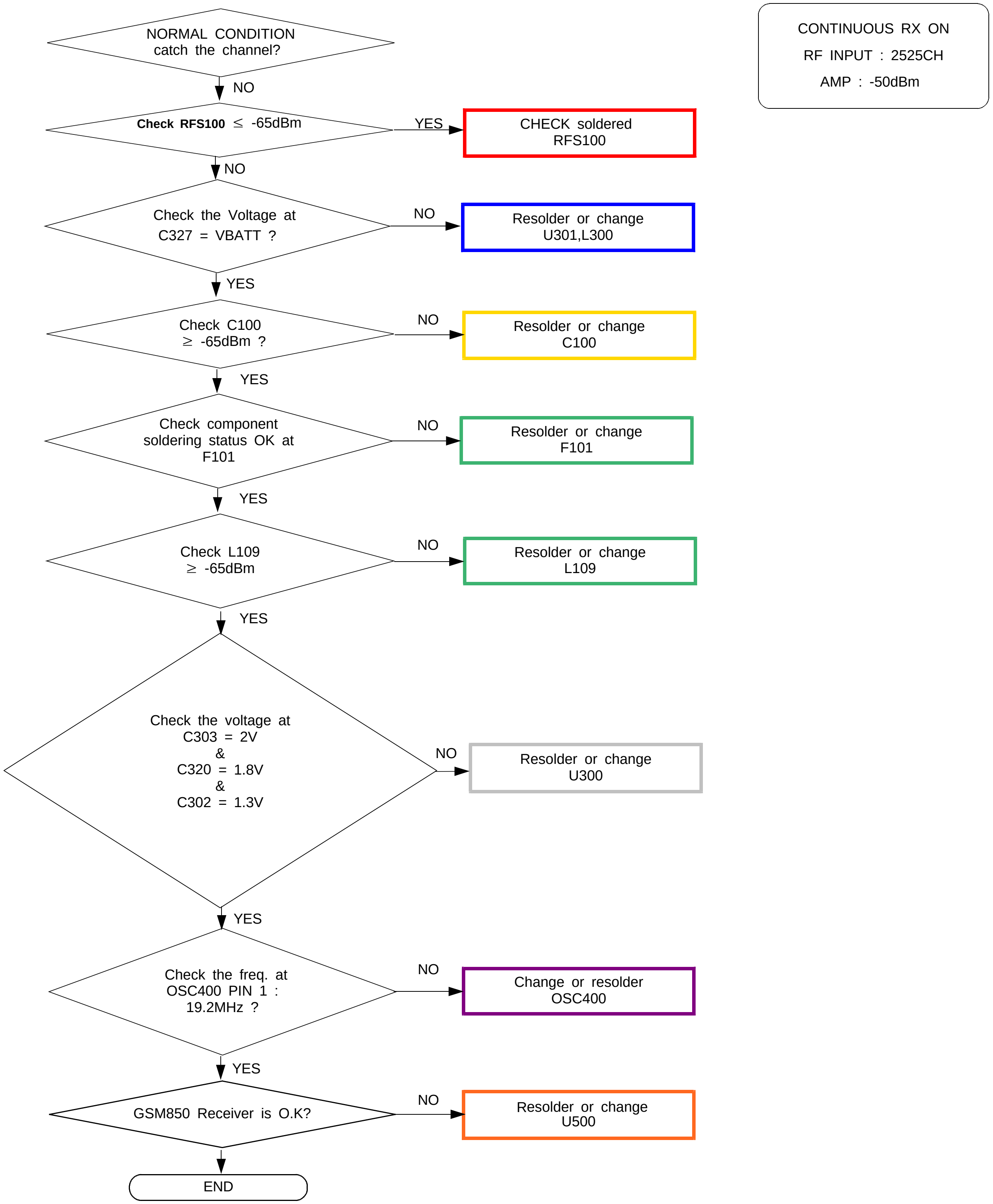
8-3-30. LTE B5 RX



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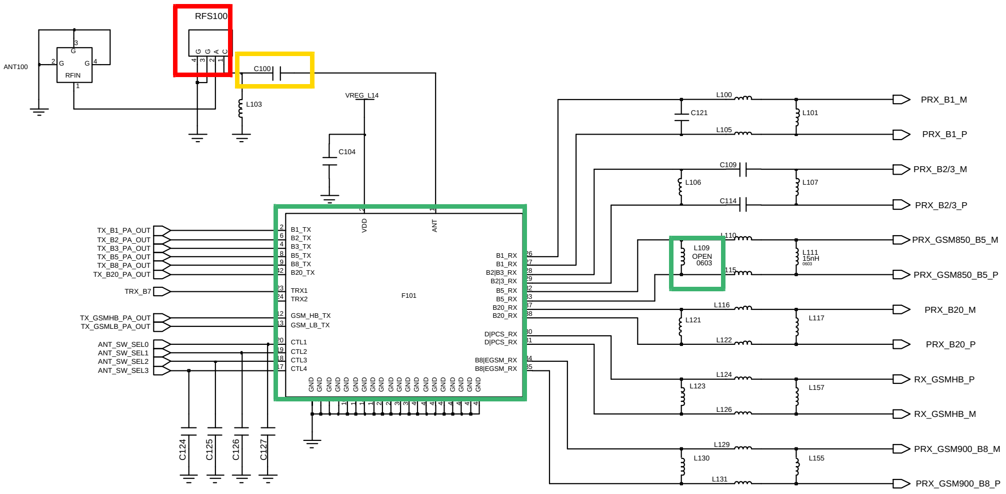

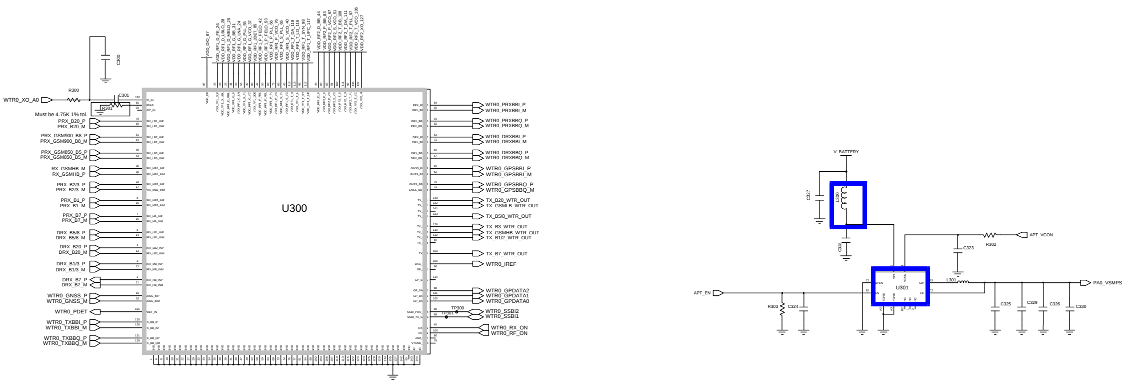

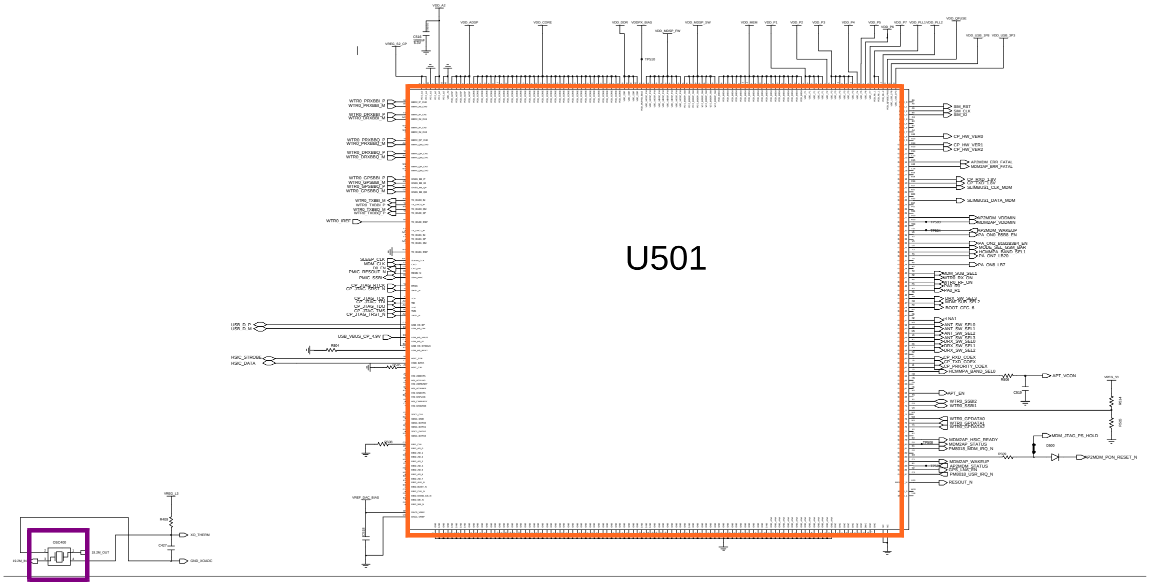

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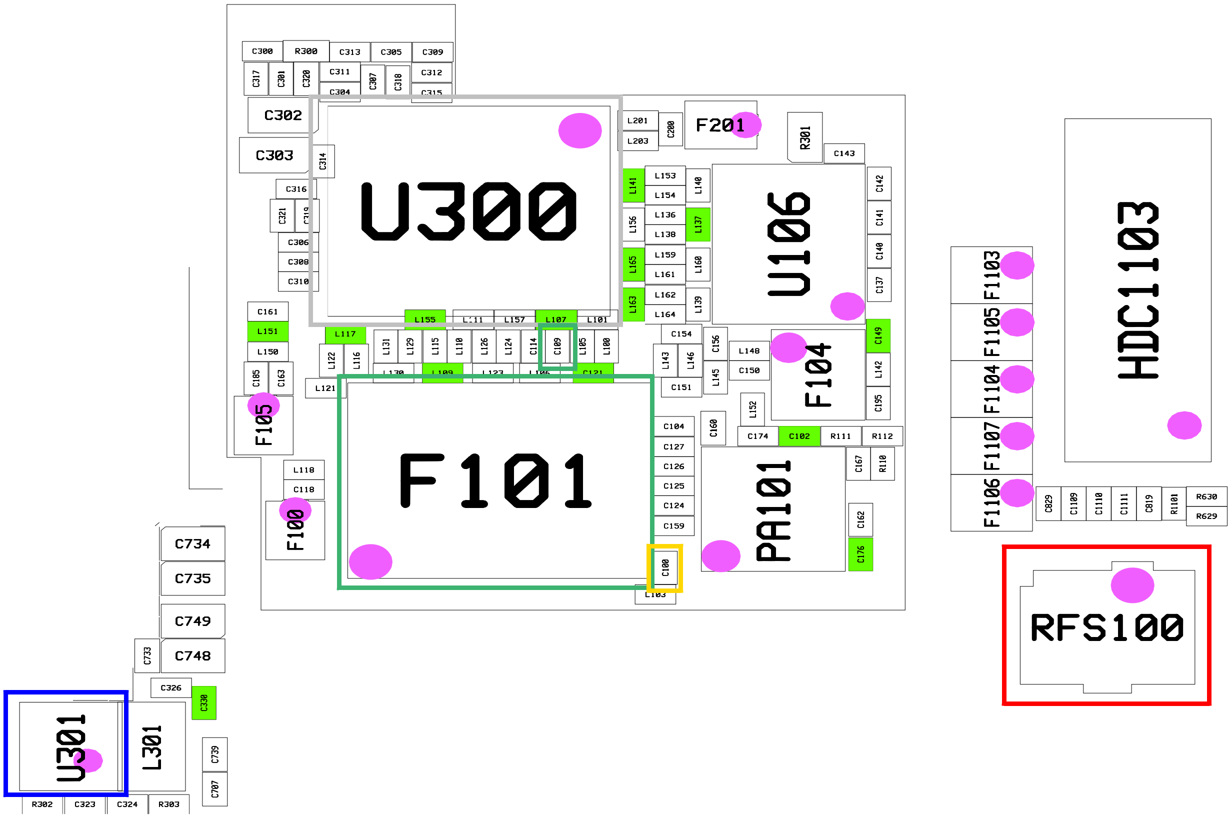

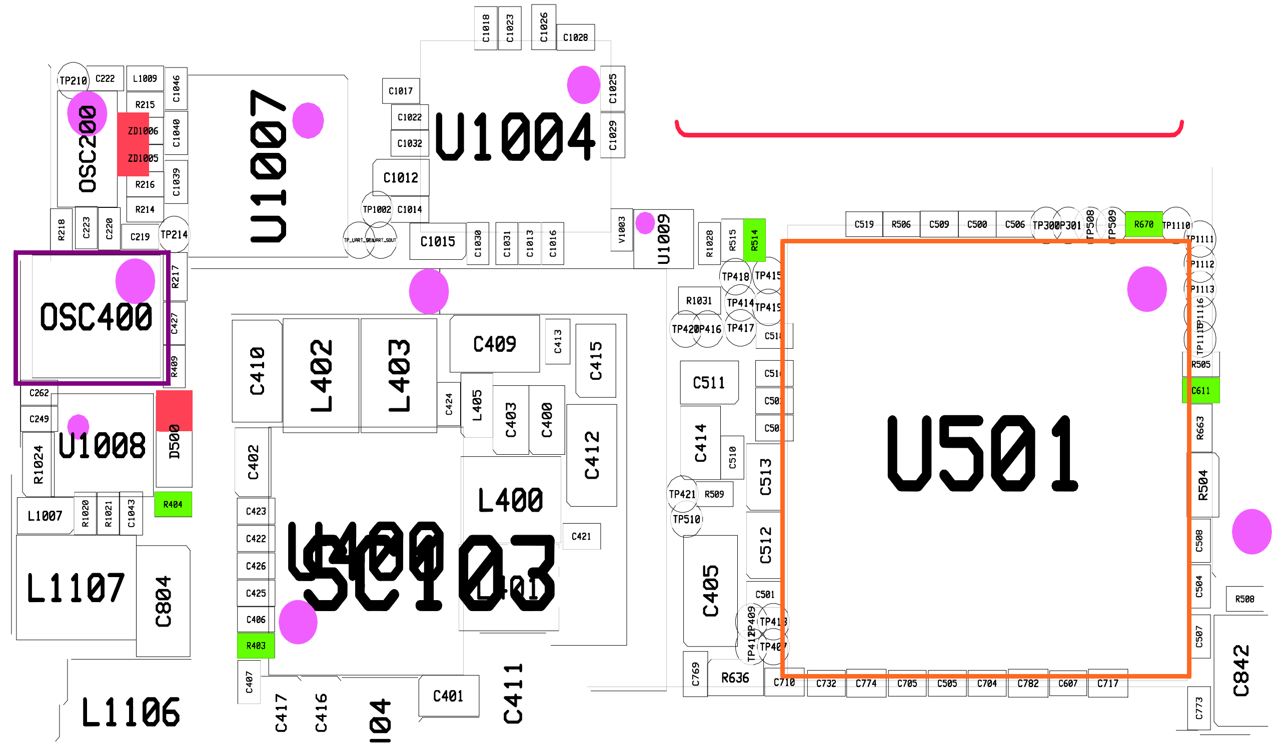

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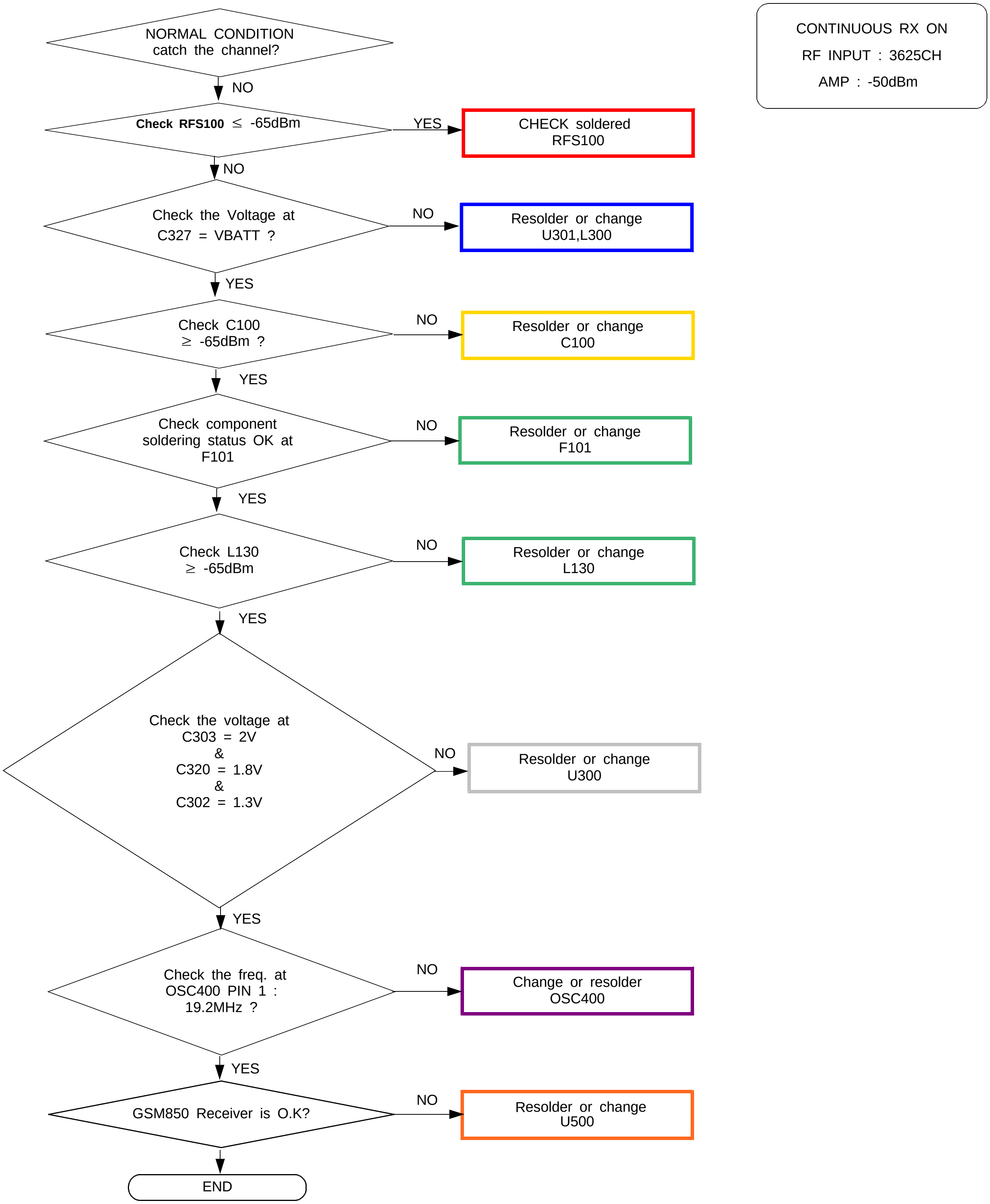
8-3-31. LTE B8 RX



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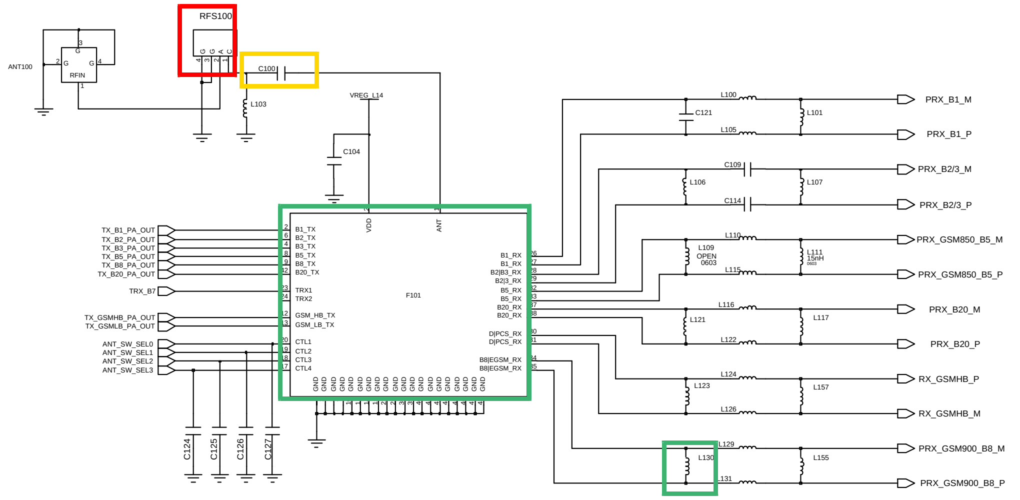

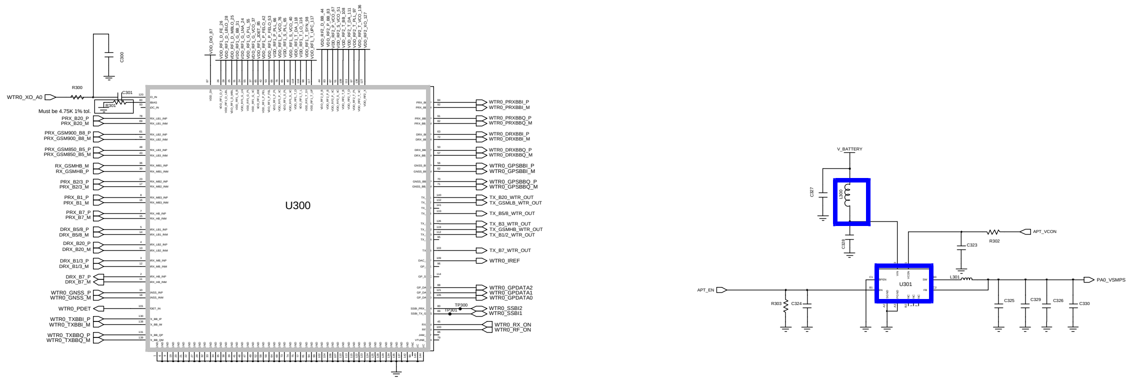

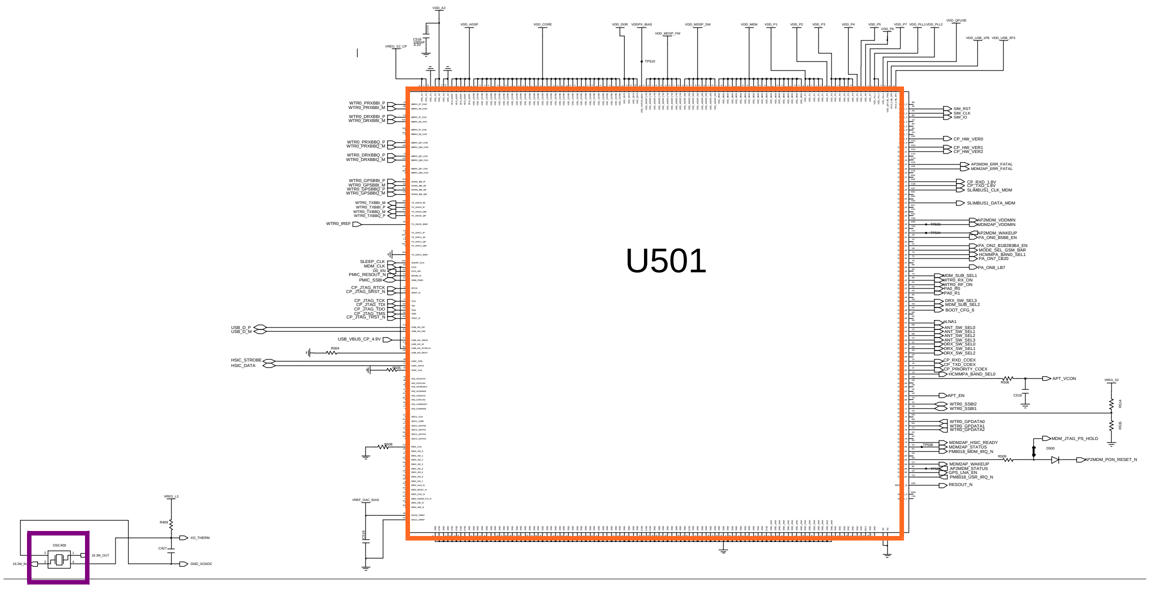

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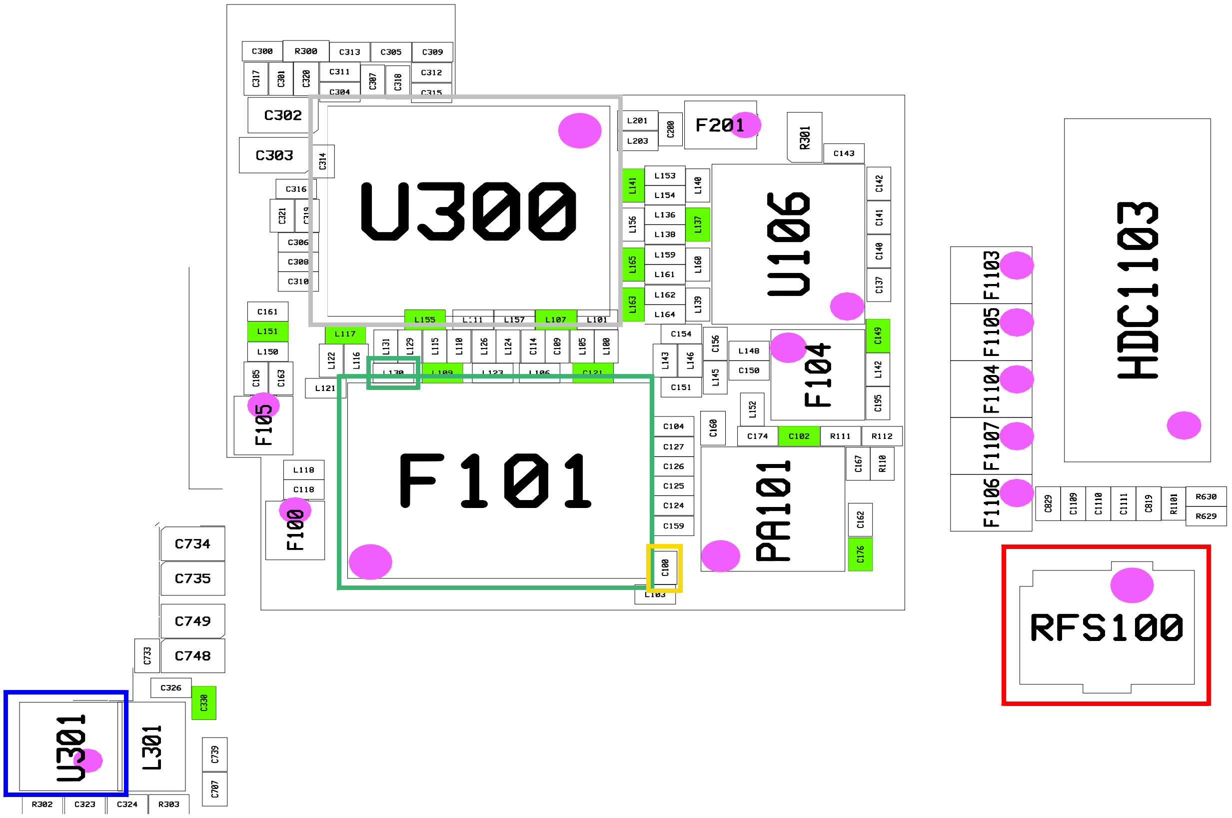

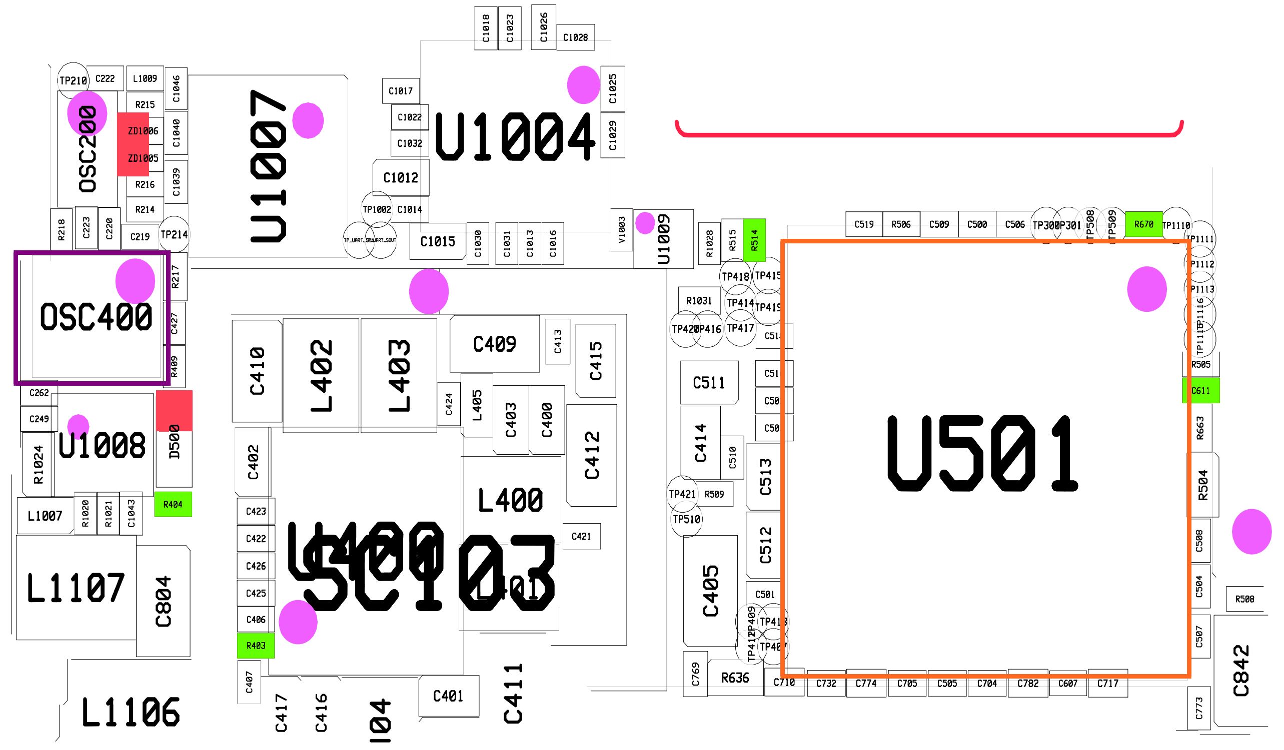

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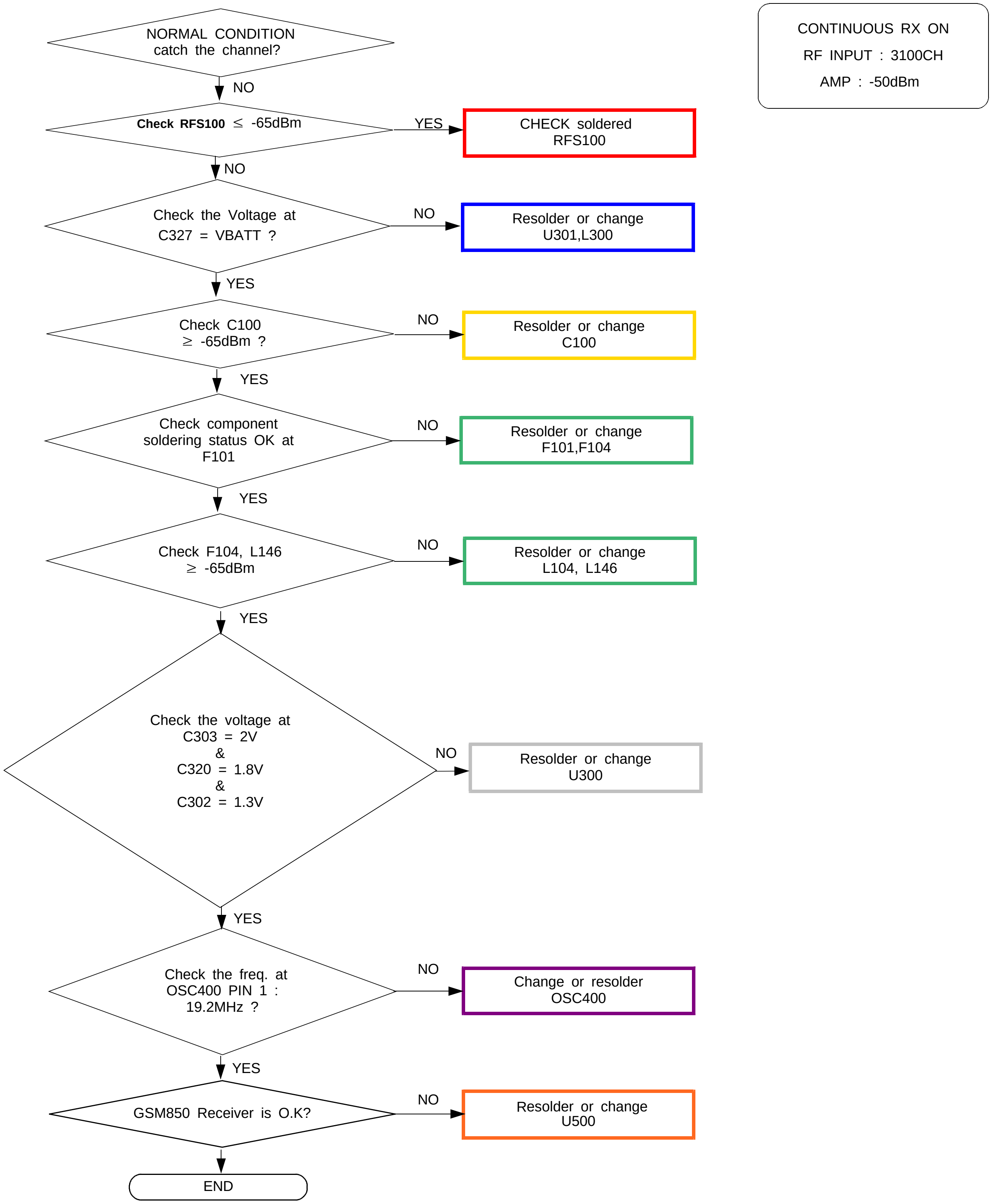
8-3-32. LTE B7 RX



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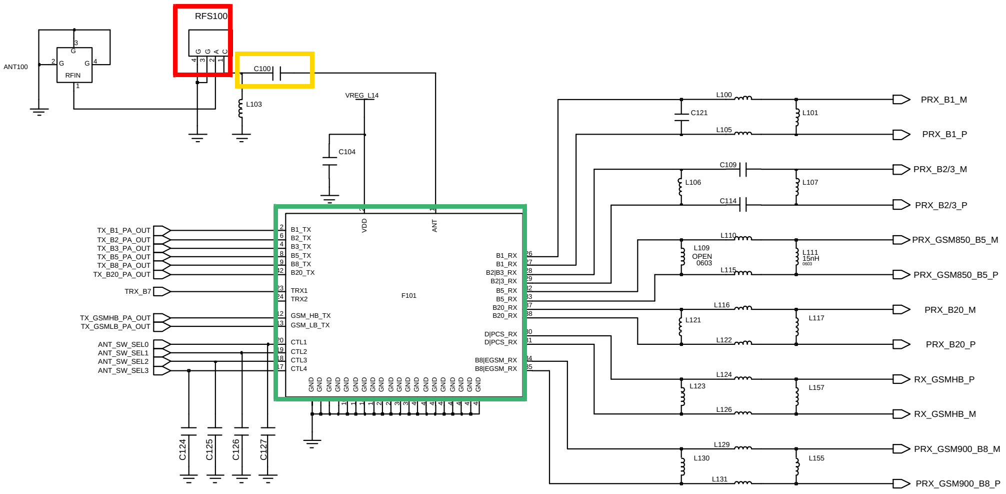

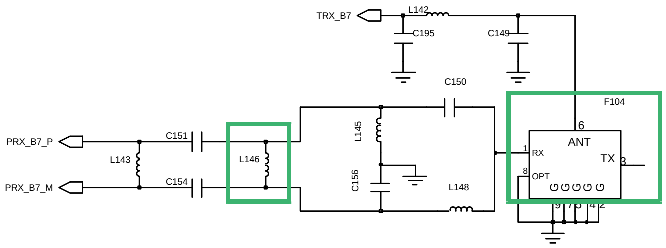

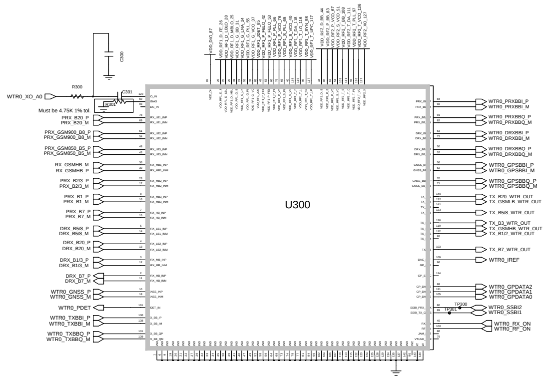

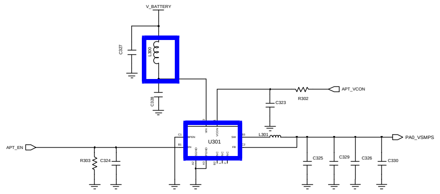

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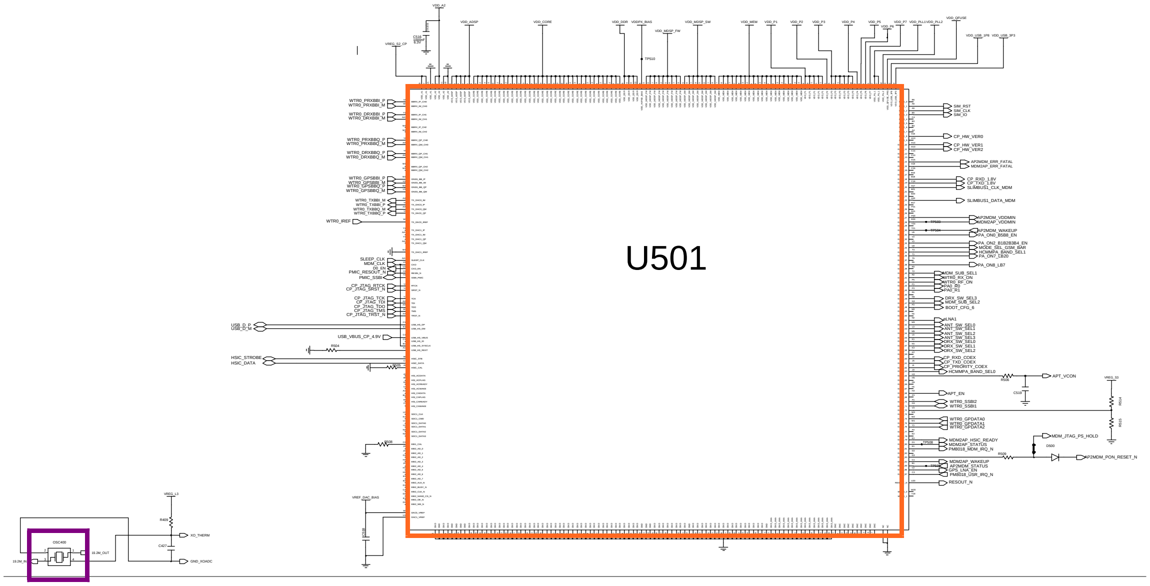

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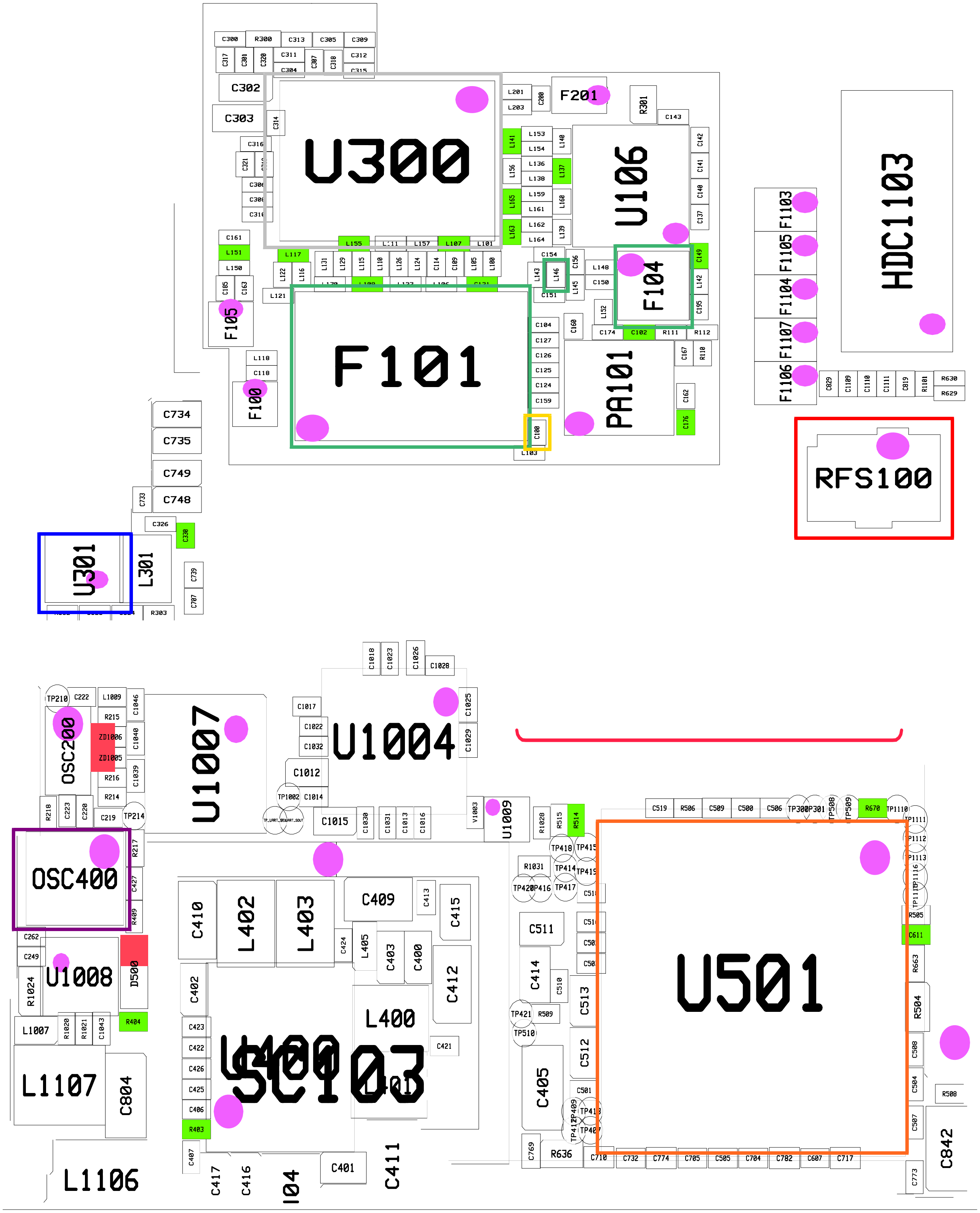

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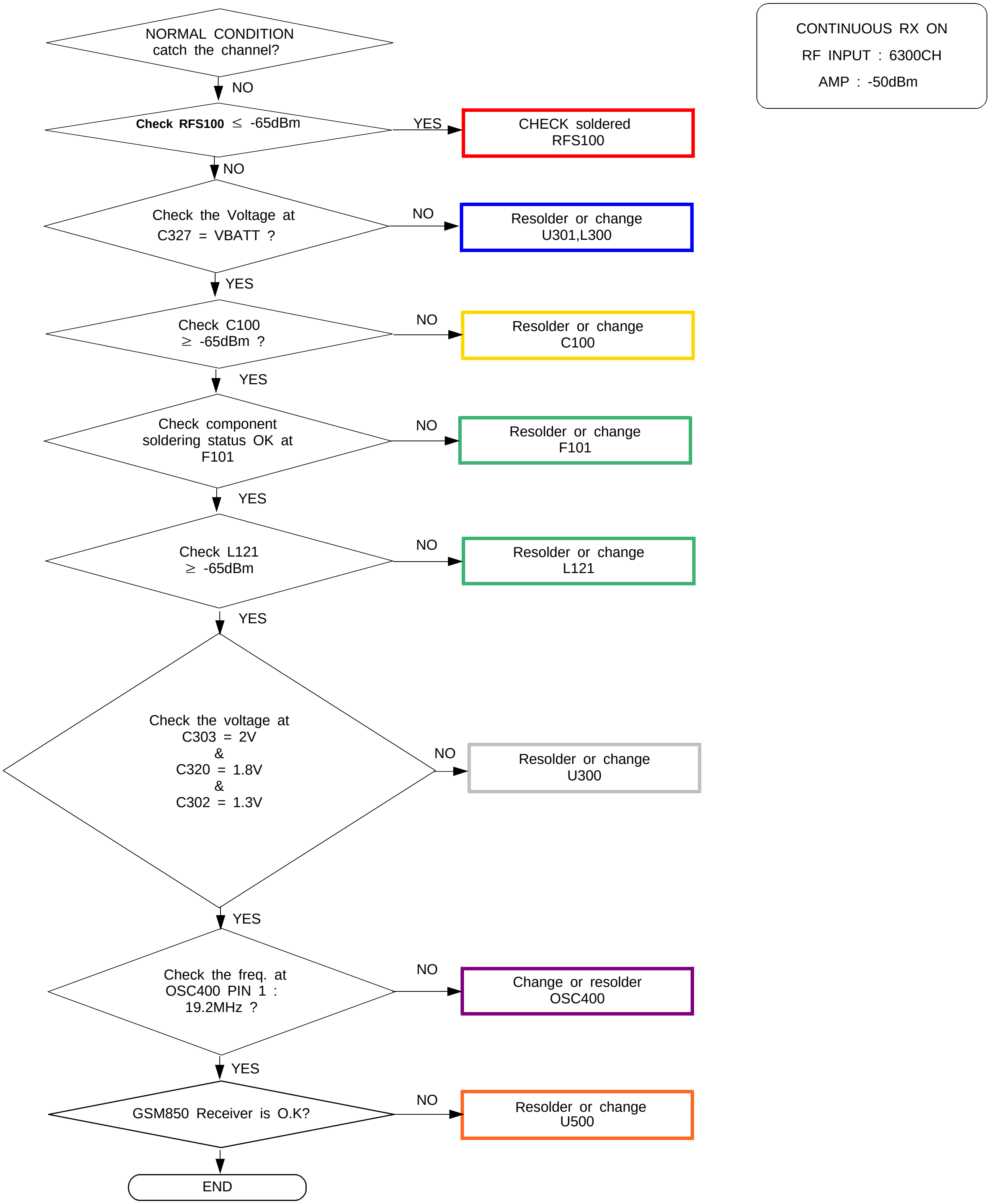
8-3-33. LTE B20 RX



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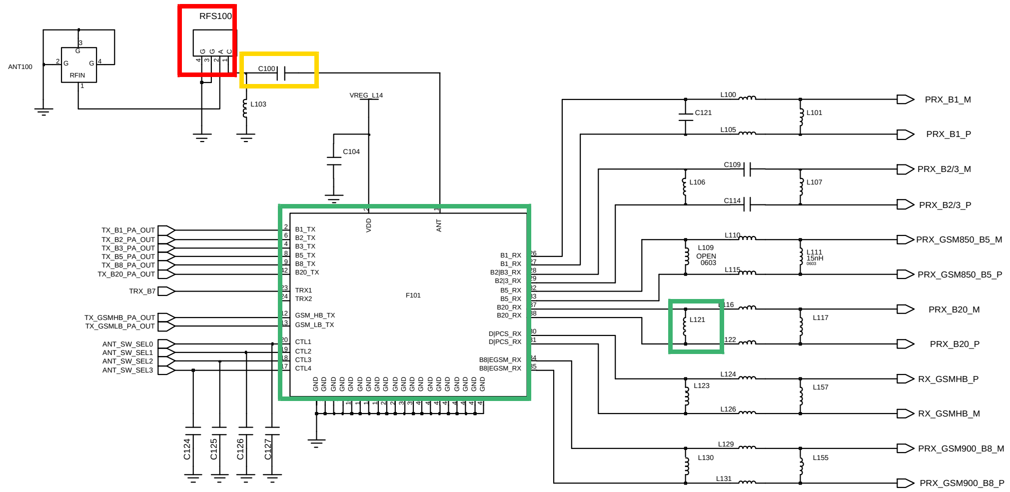

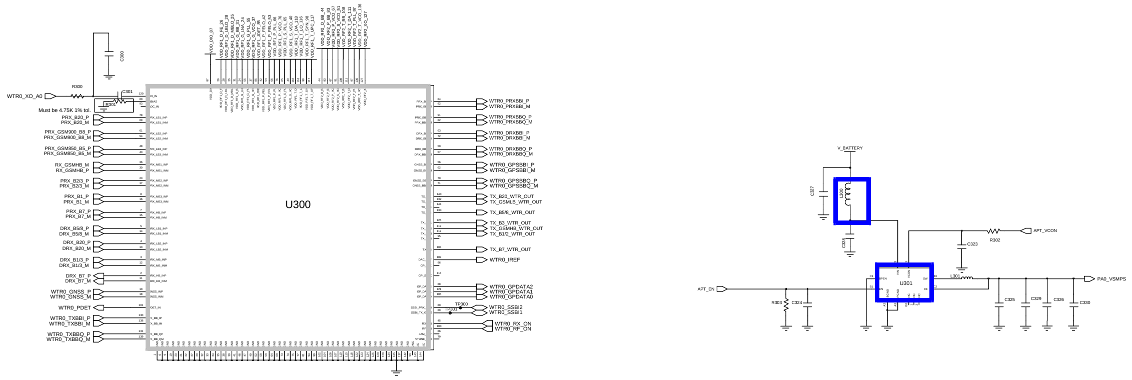

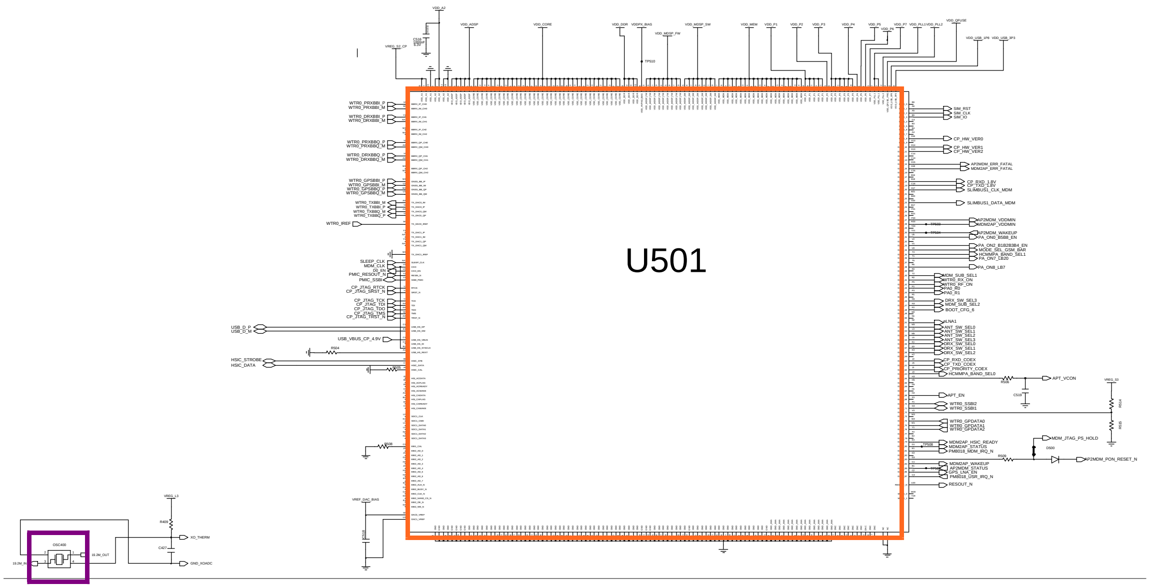

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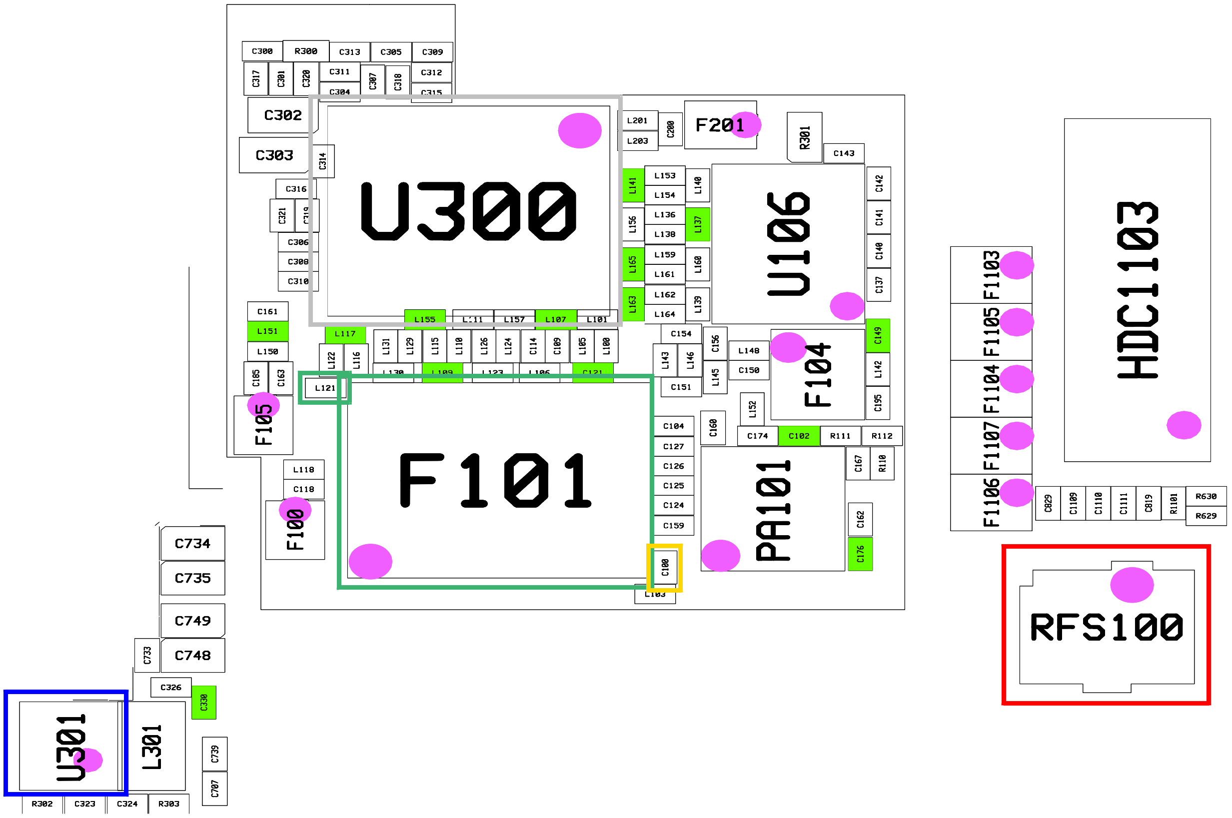

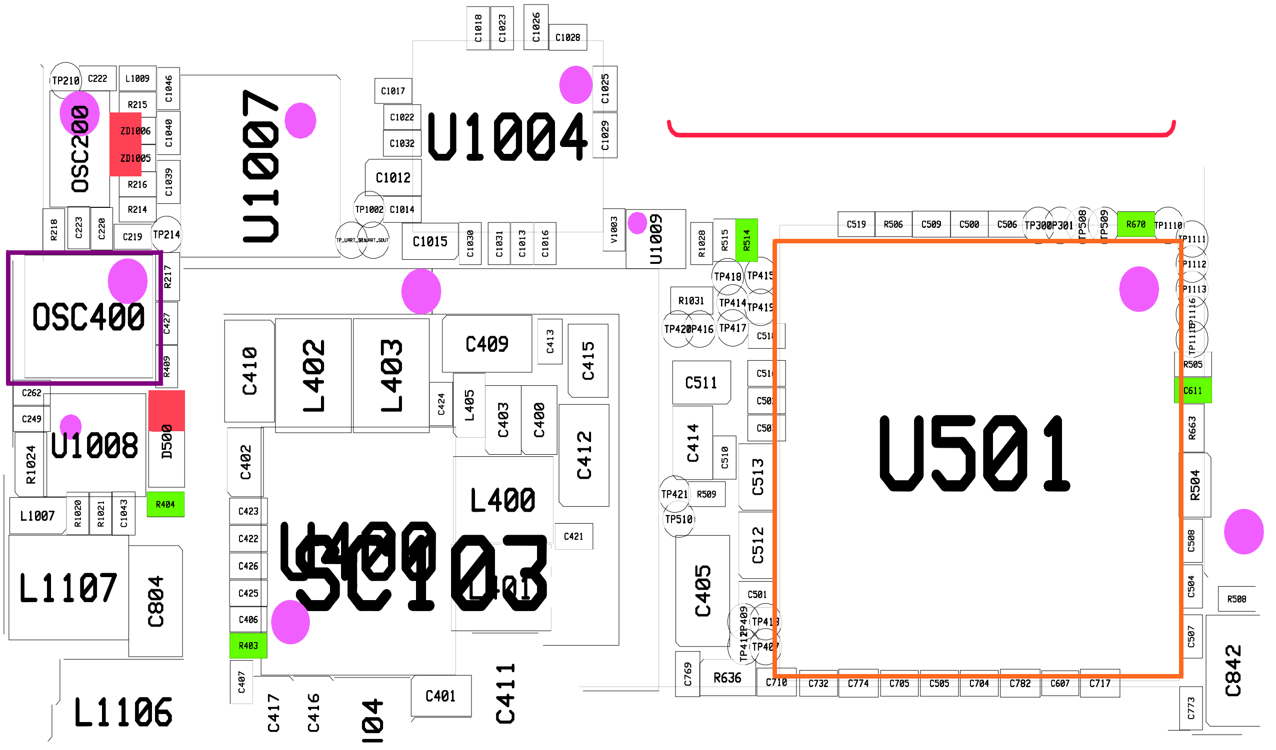

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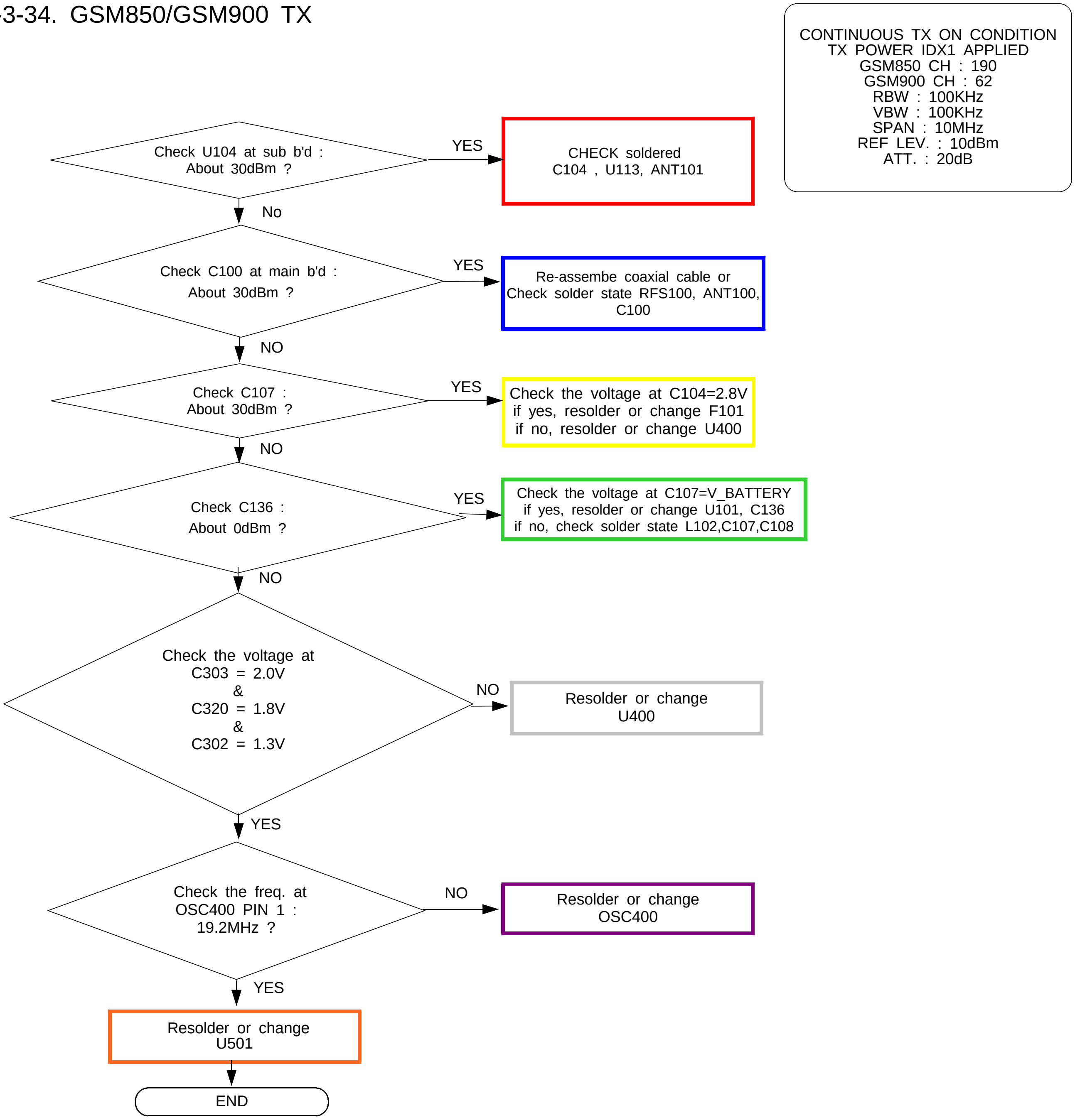
8-3-34. GSM850/GSM900 TX



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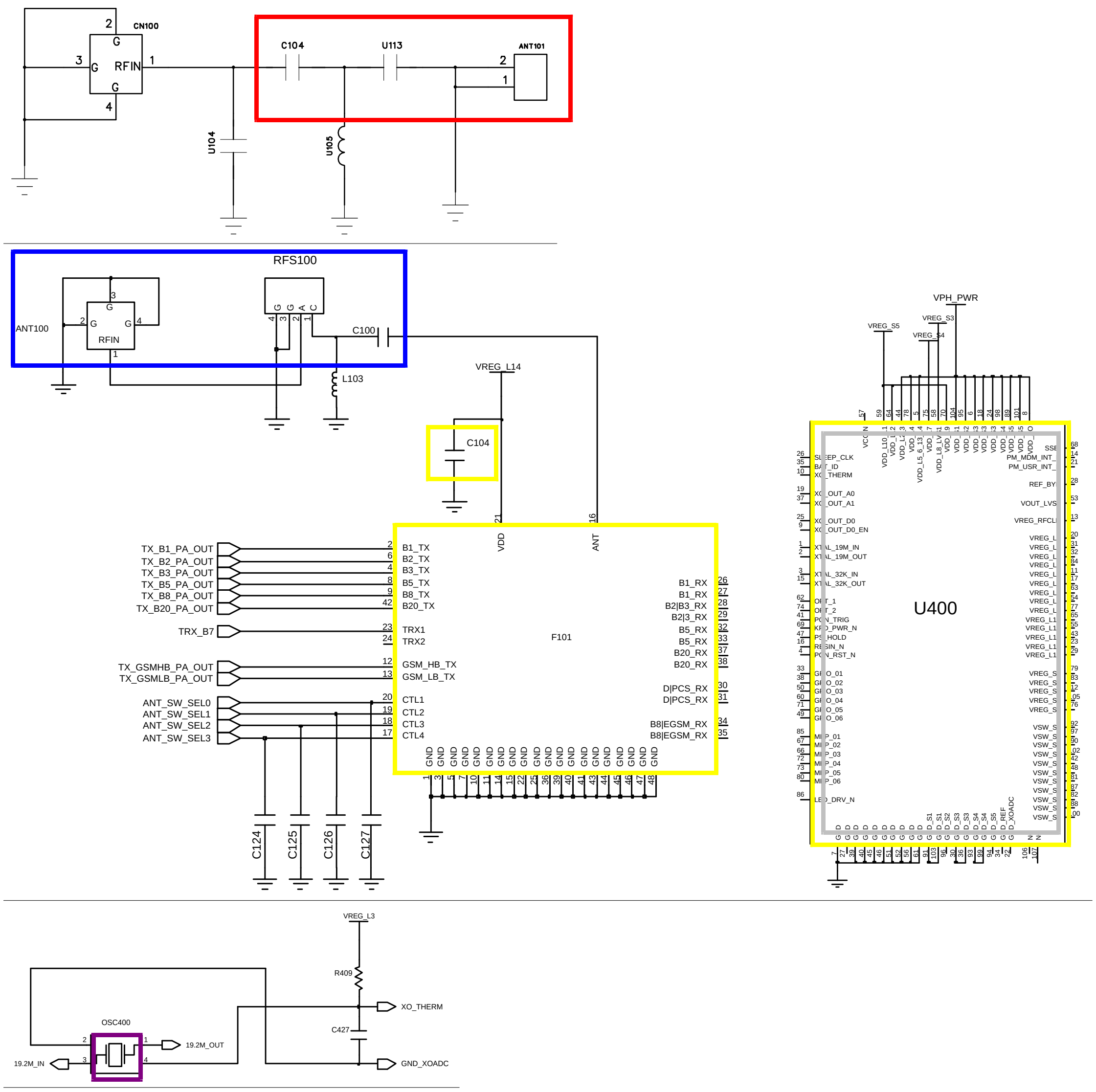

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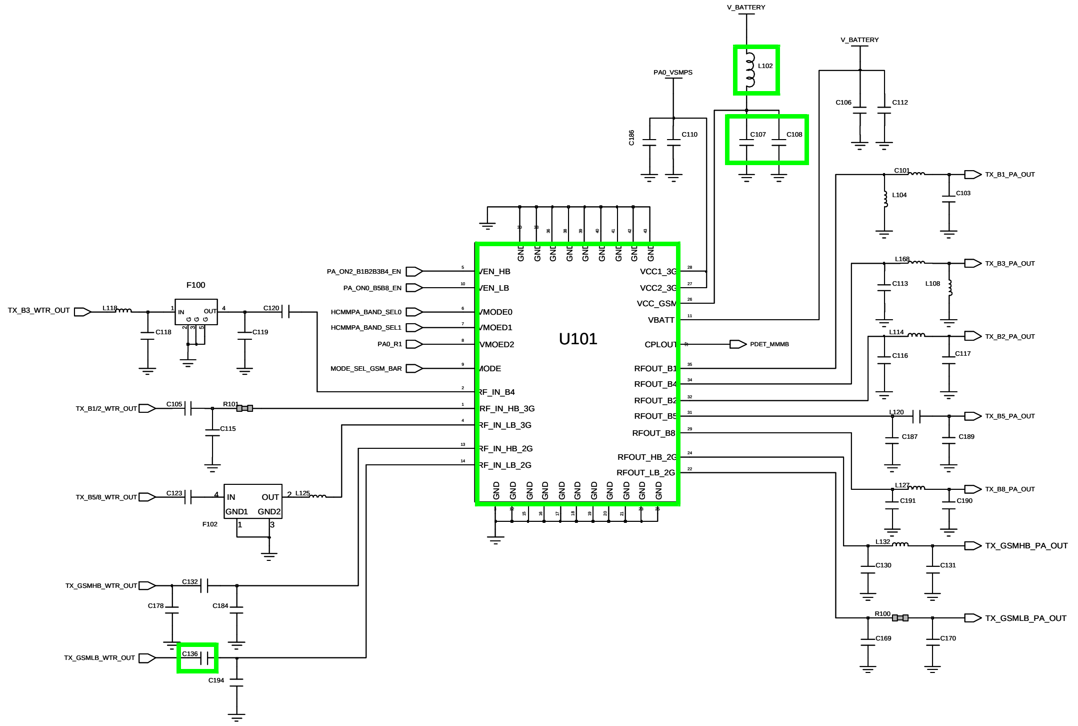

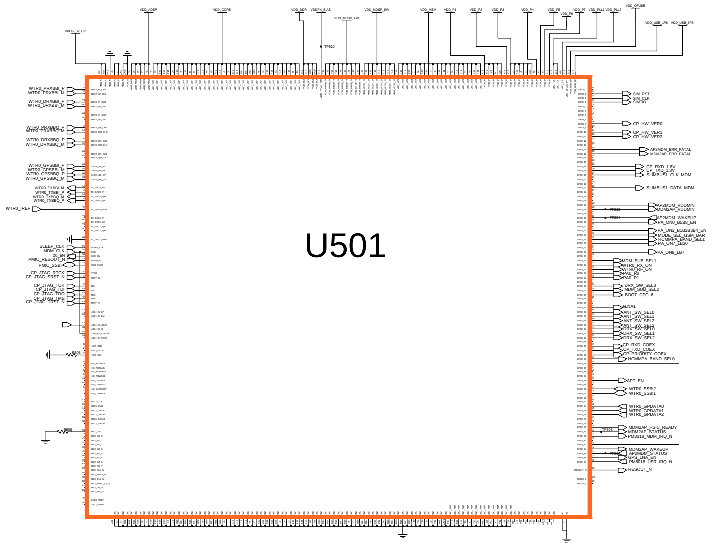

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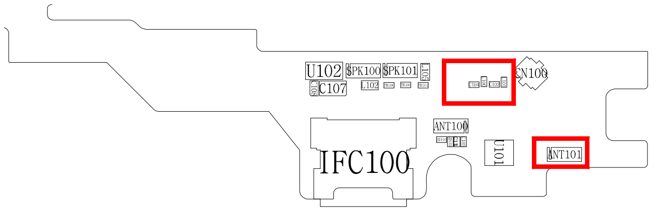

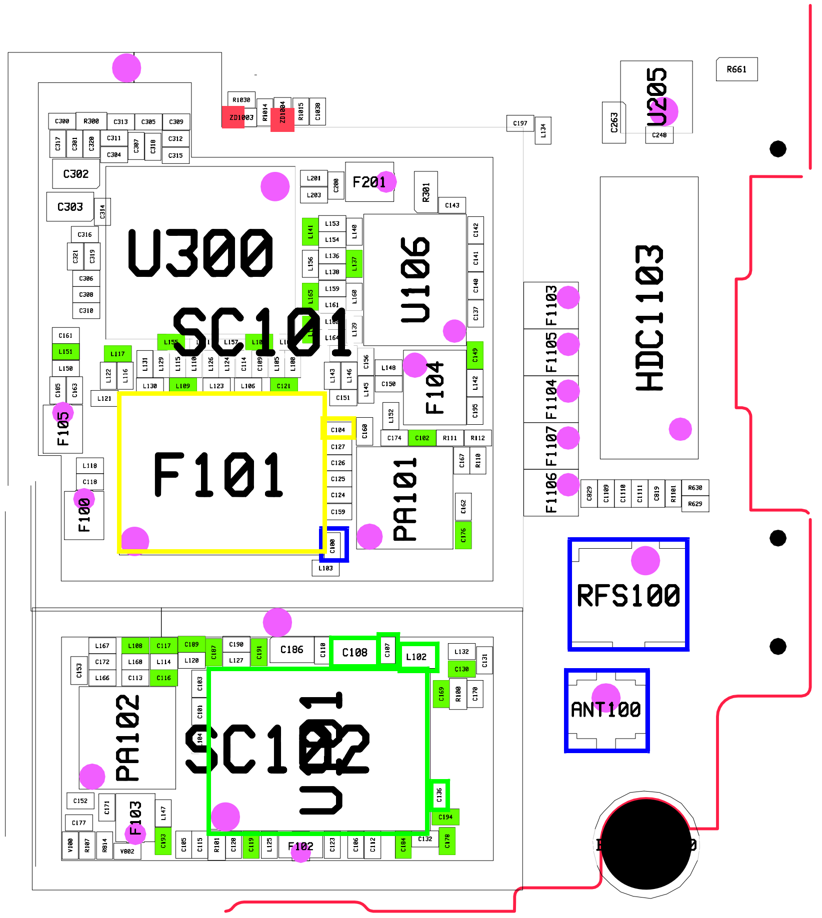

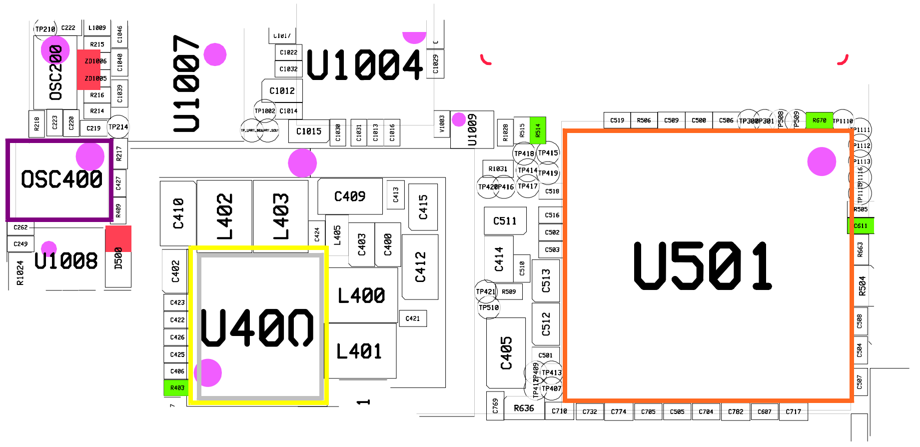

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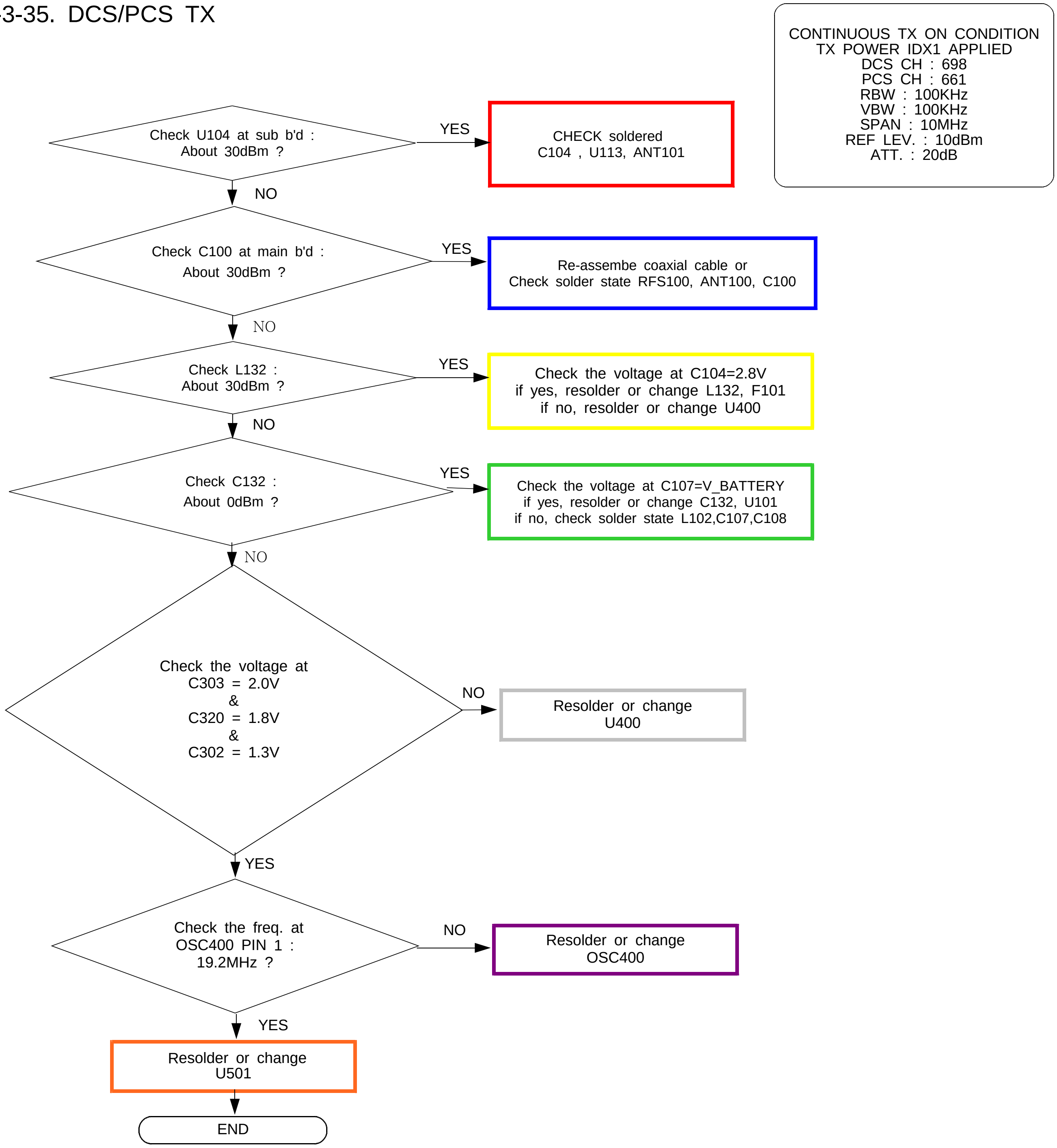
8-3-35. DCS/PCS TX



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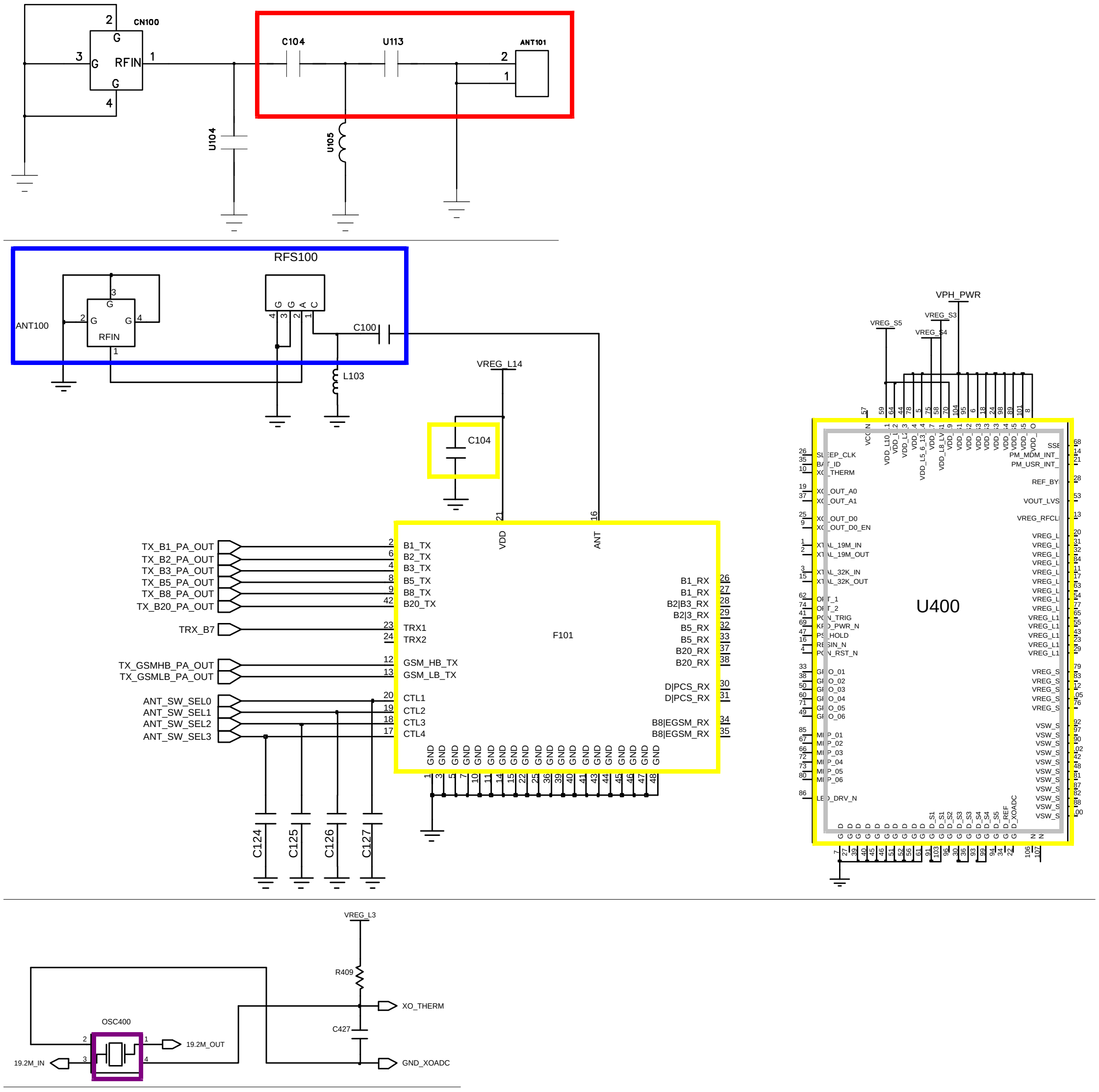

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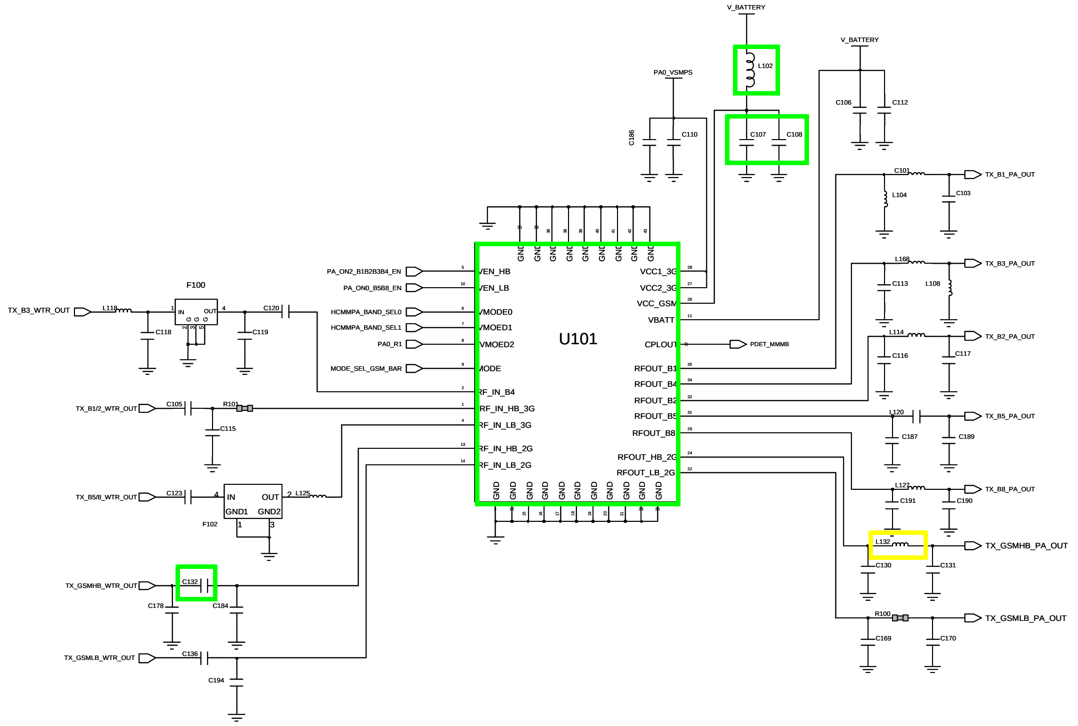

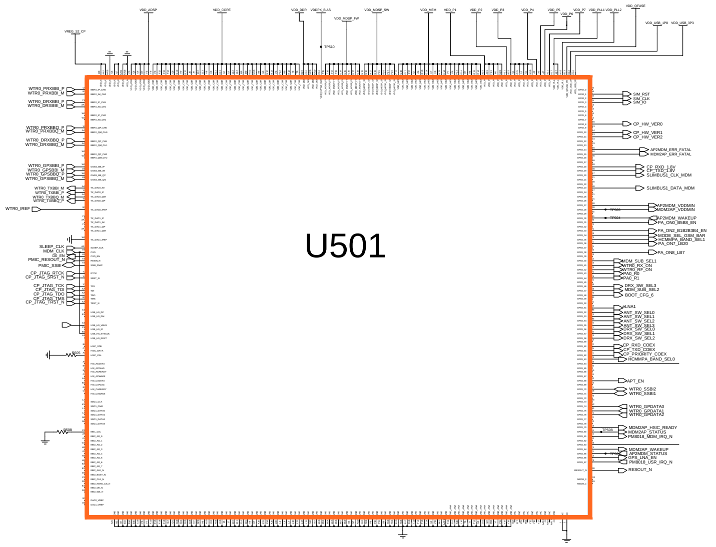

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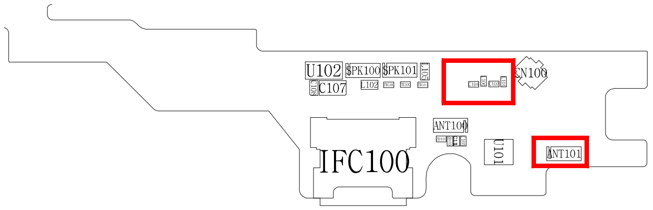

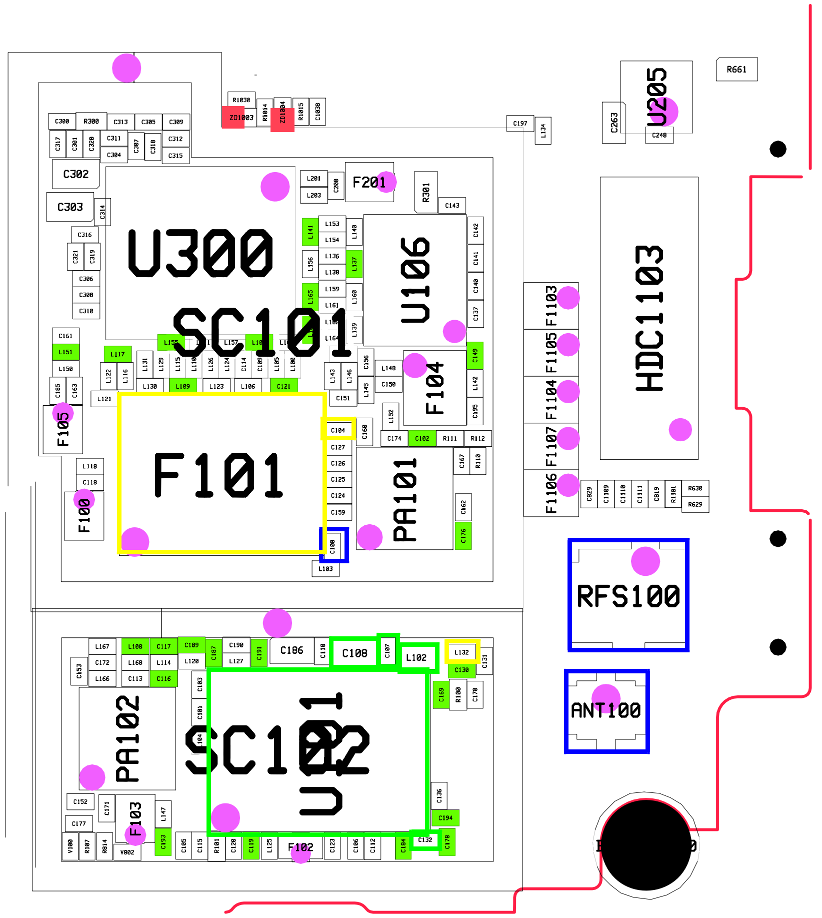

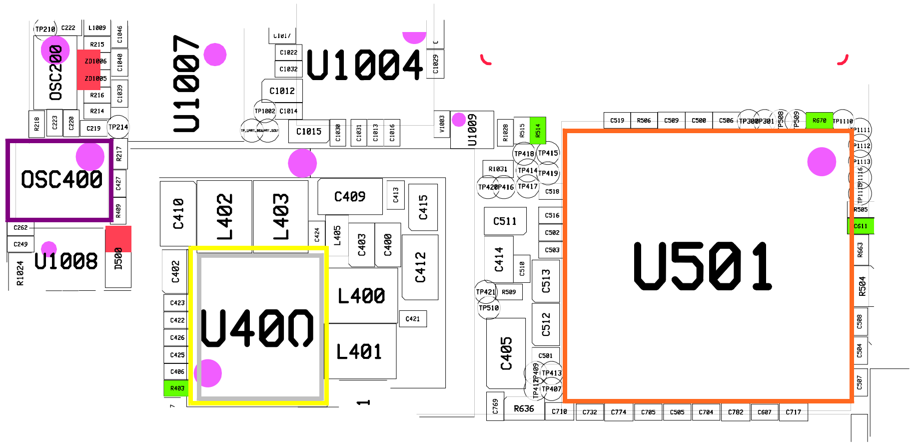

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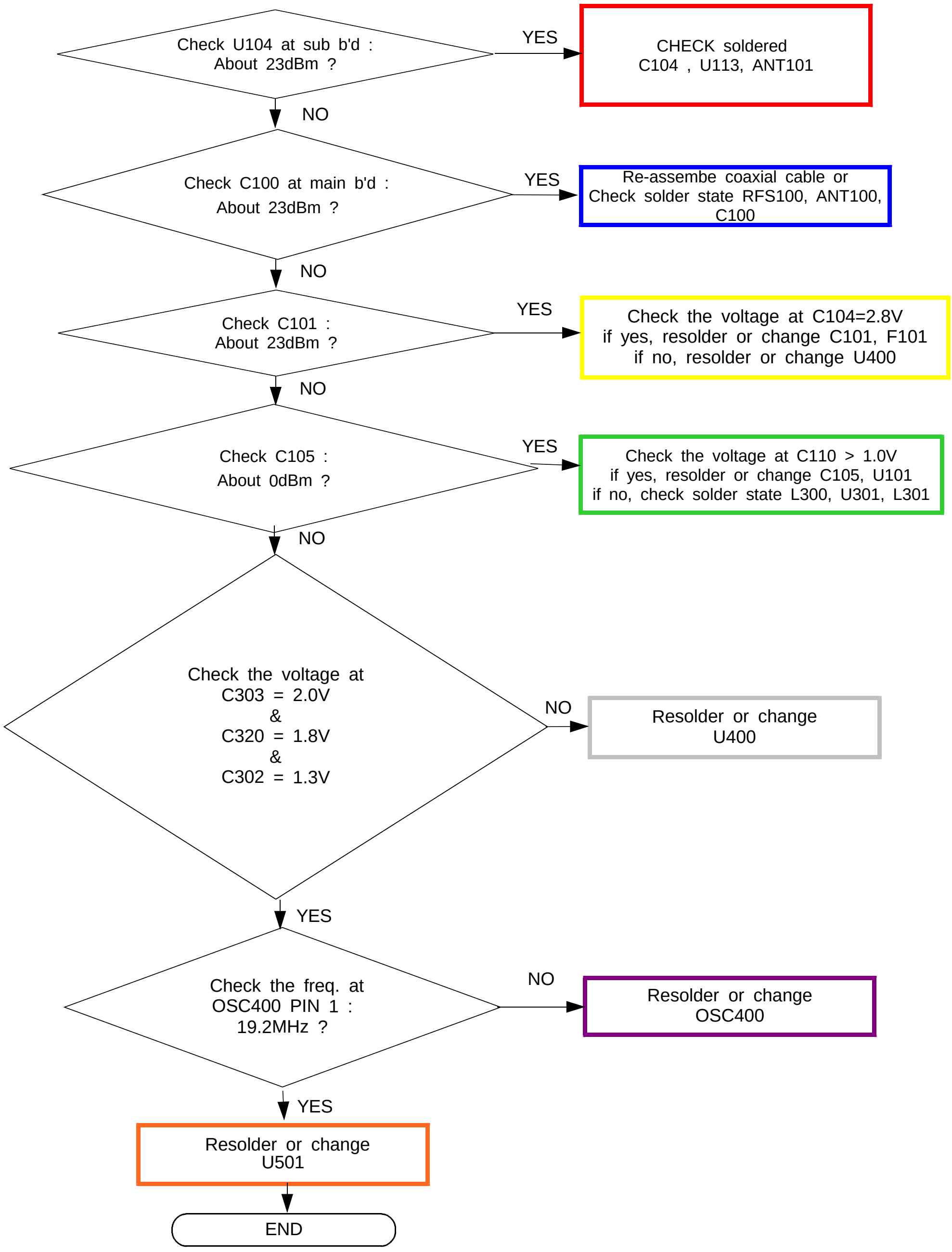
8-3-36. WCDMA2100 / LTE B1 TX



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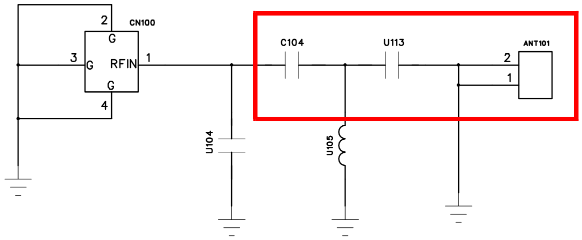

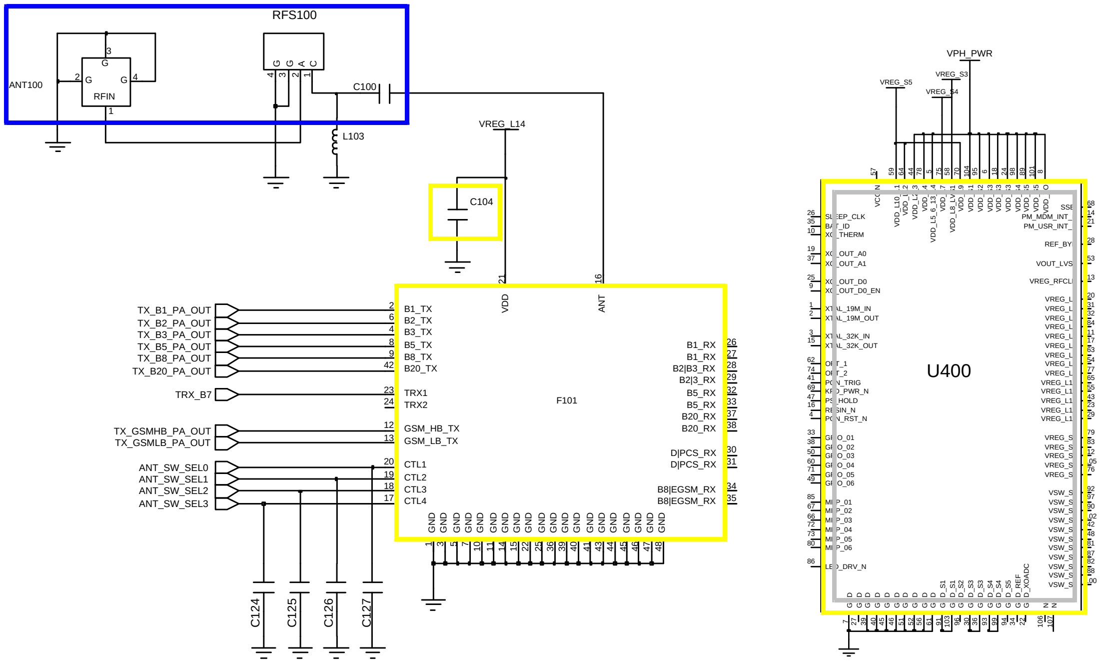

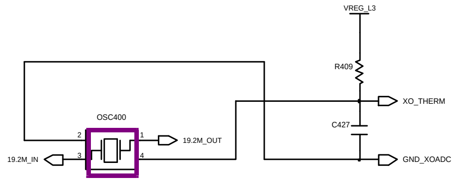

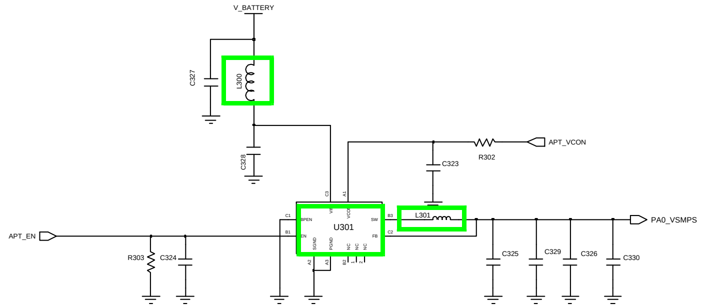

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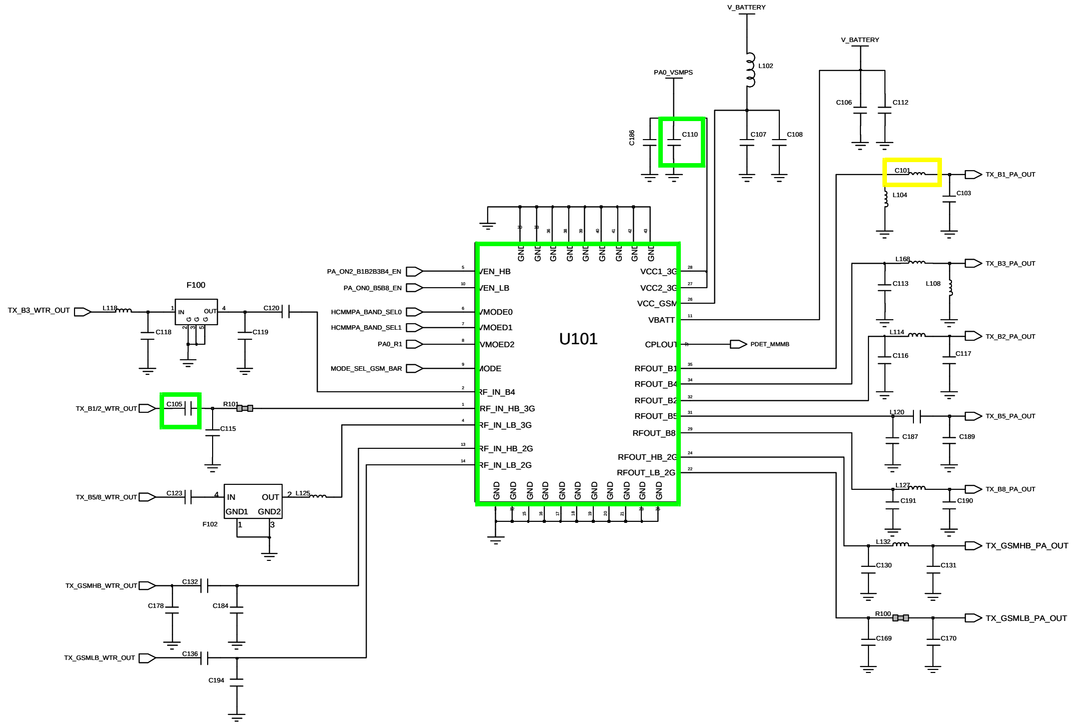

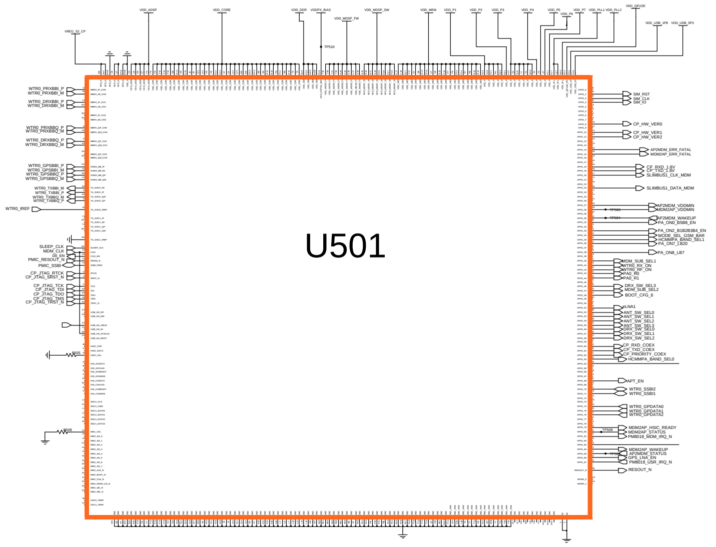

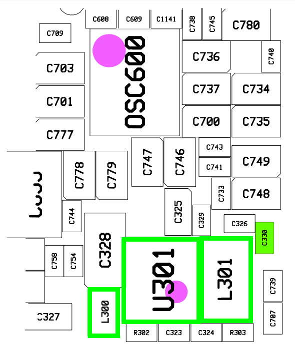

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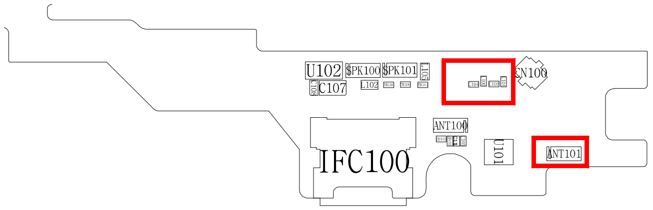

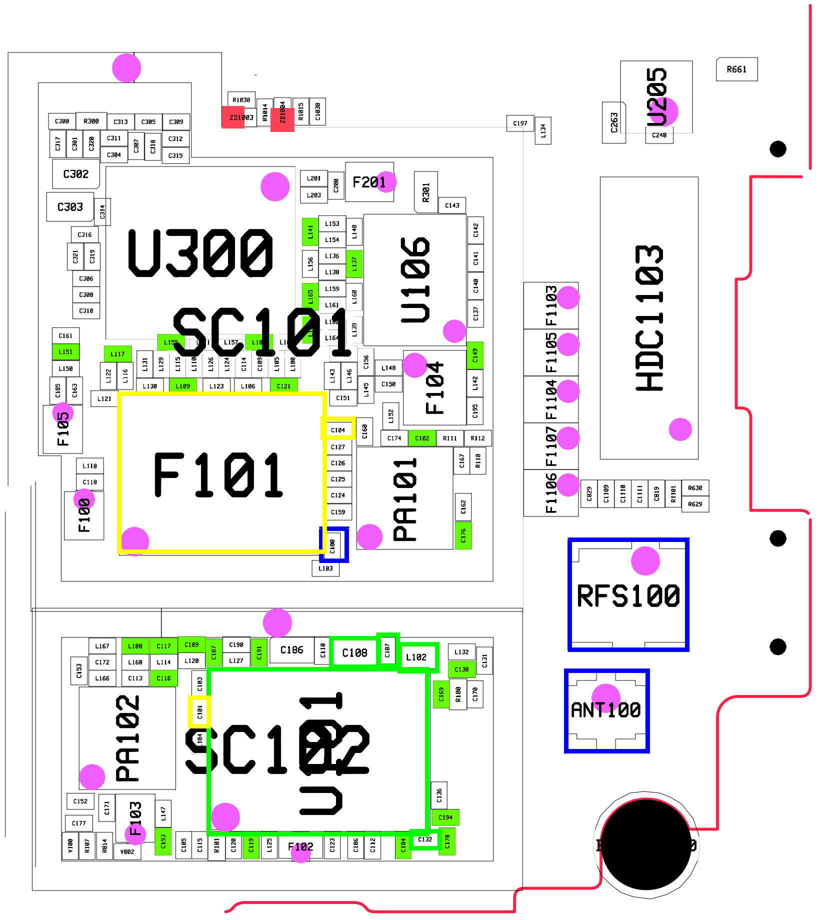

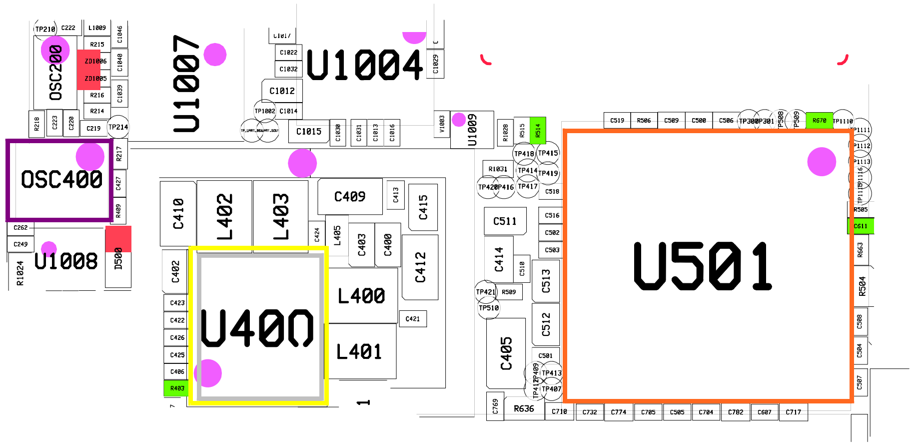

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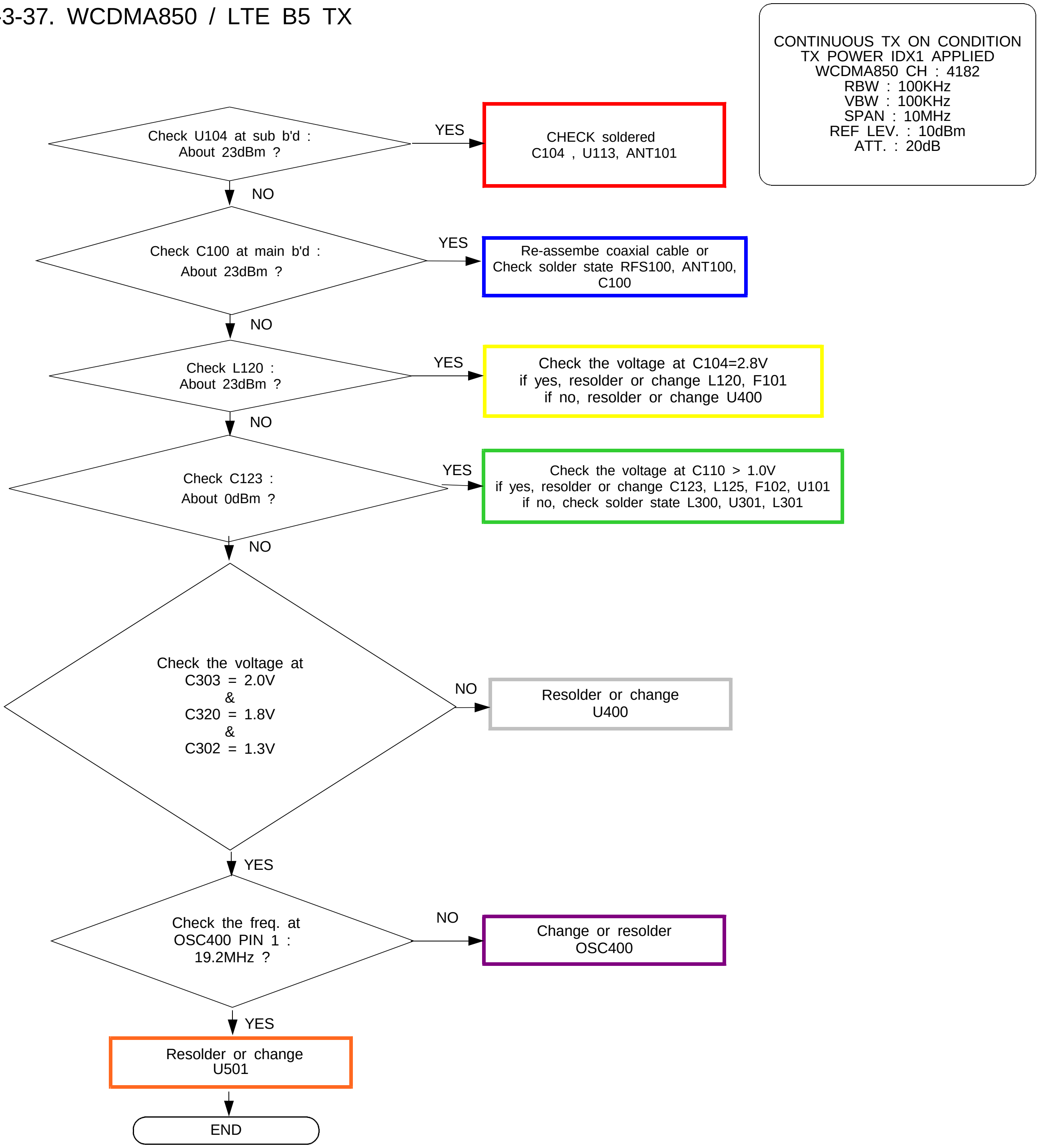
8-3-37. WCDMA850 / LTE B5 TX



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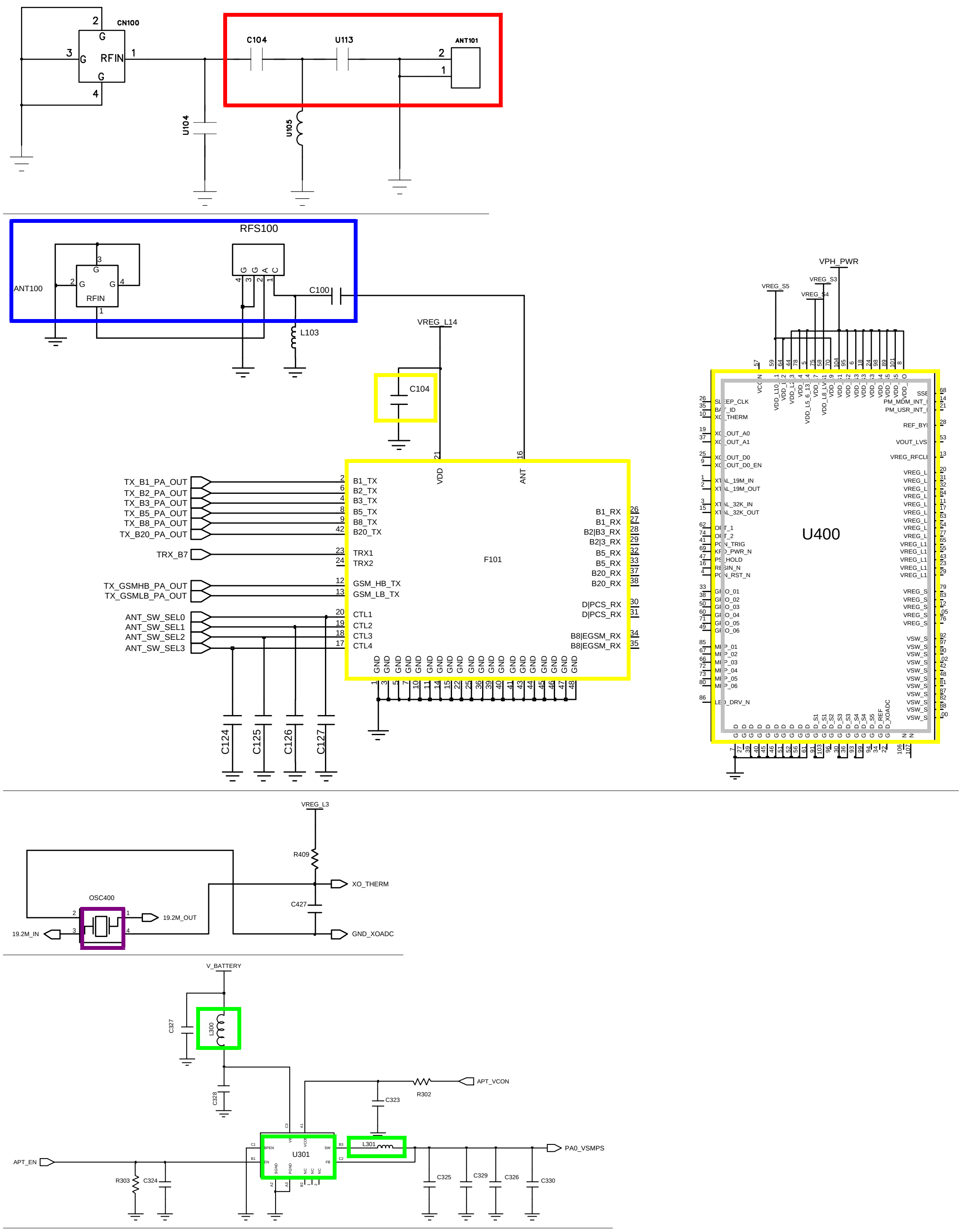

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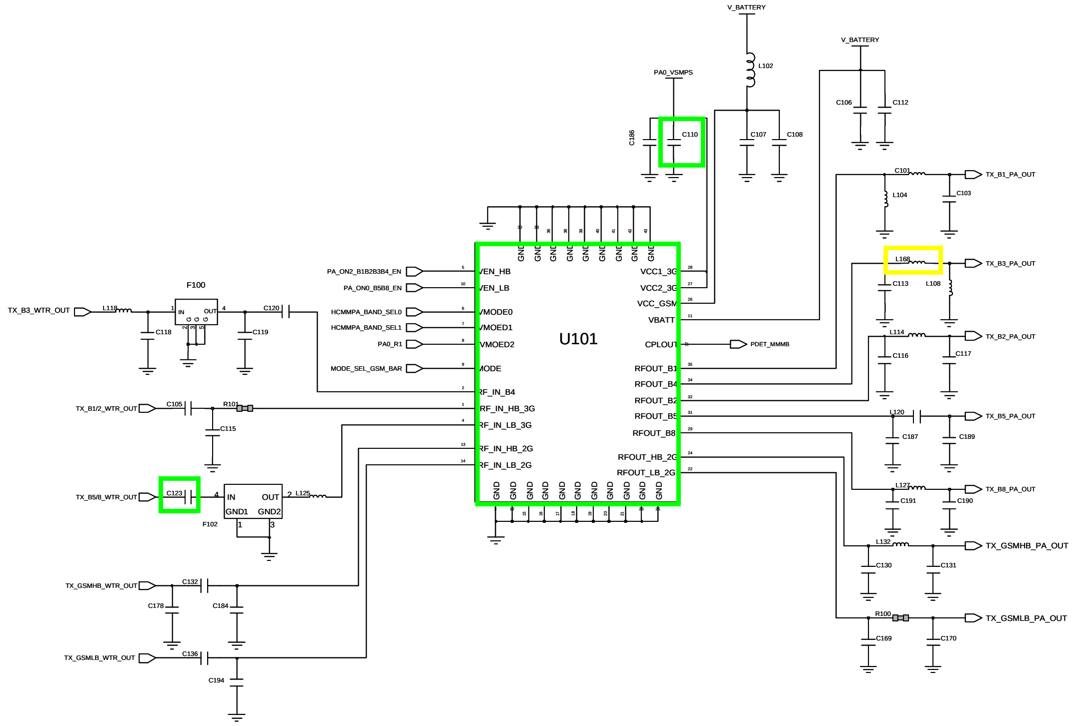

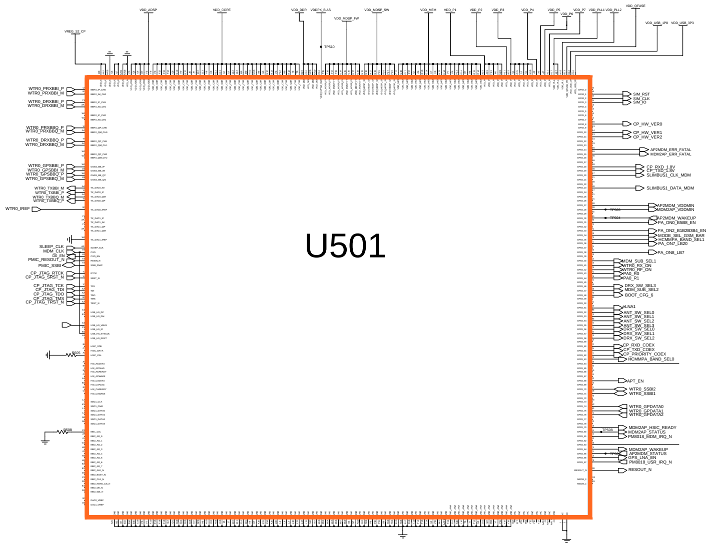

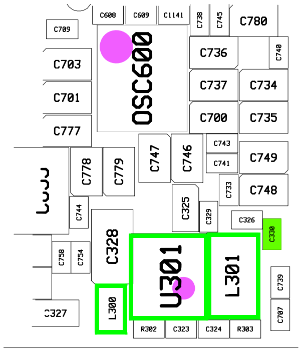

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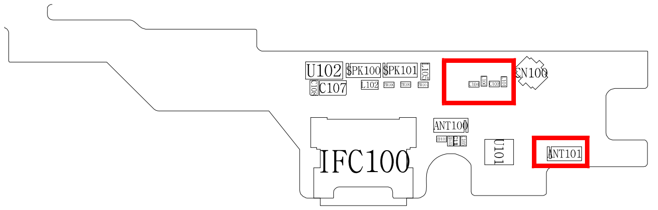

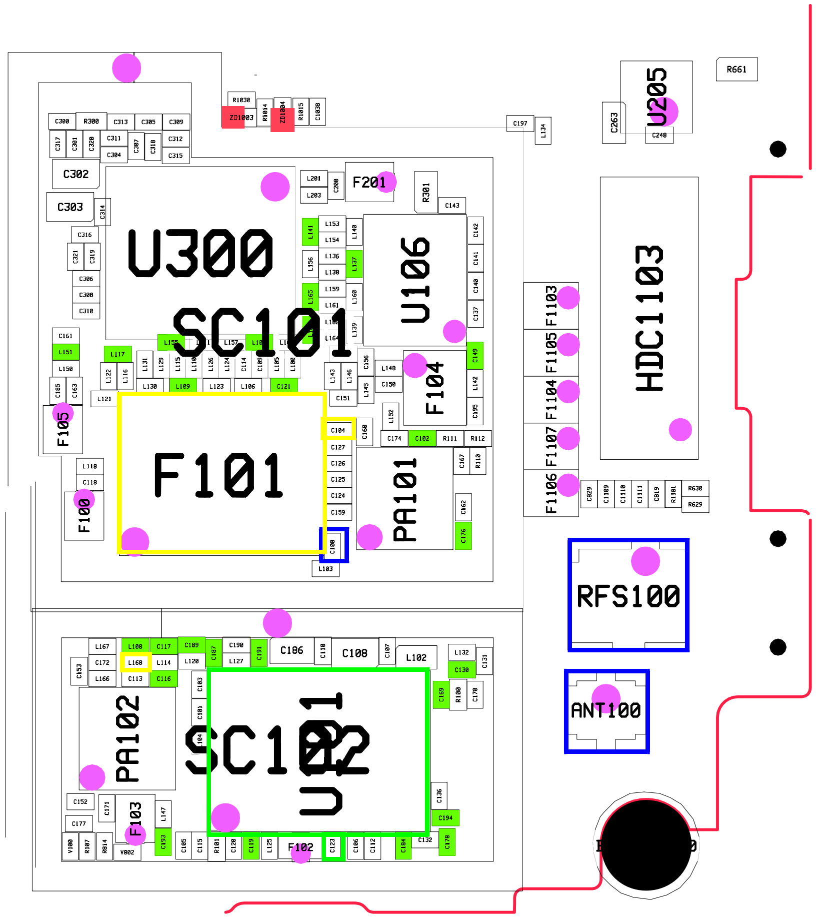

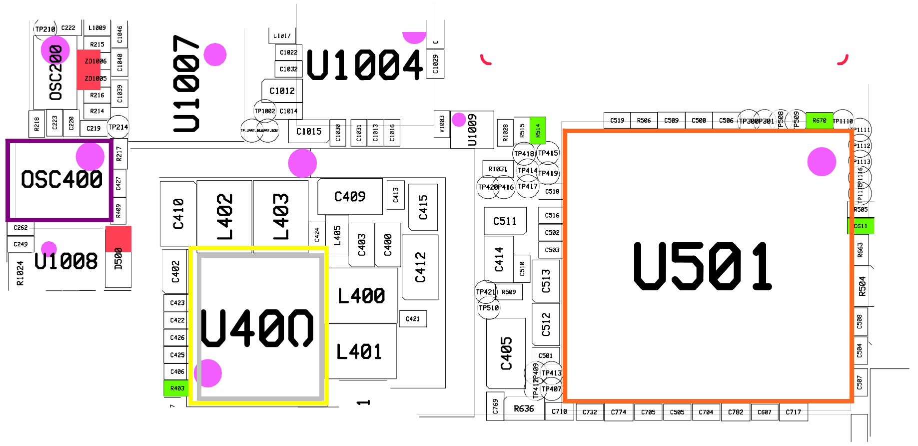

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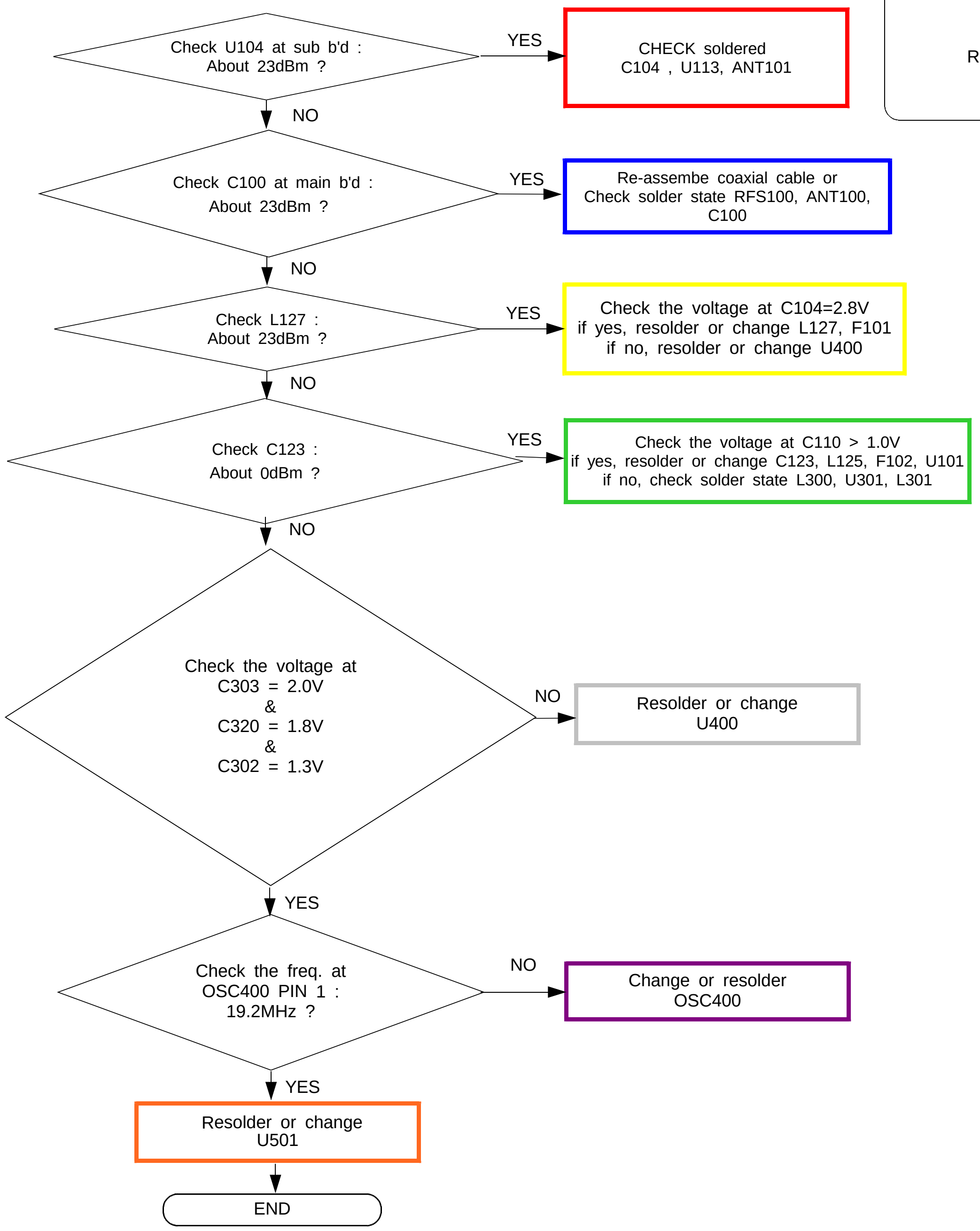
8-3-38. WCDMA900 / LTE B8 TX

CONTINUOUS TX ON CONDITION
TX POWER IDX1 APPLIED
WCDMA900 CH : 2788
RBW : 100KHz
VBW : 100KHz
SPAN : 10MHz
REF LEV. : 10dBm
ATT. : 20dB



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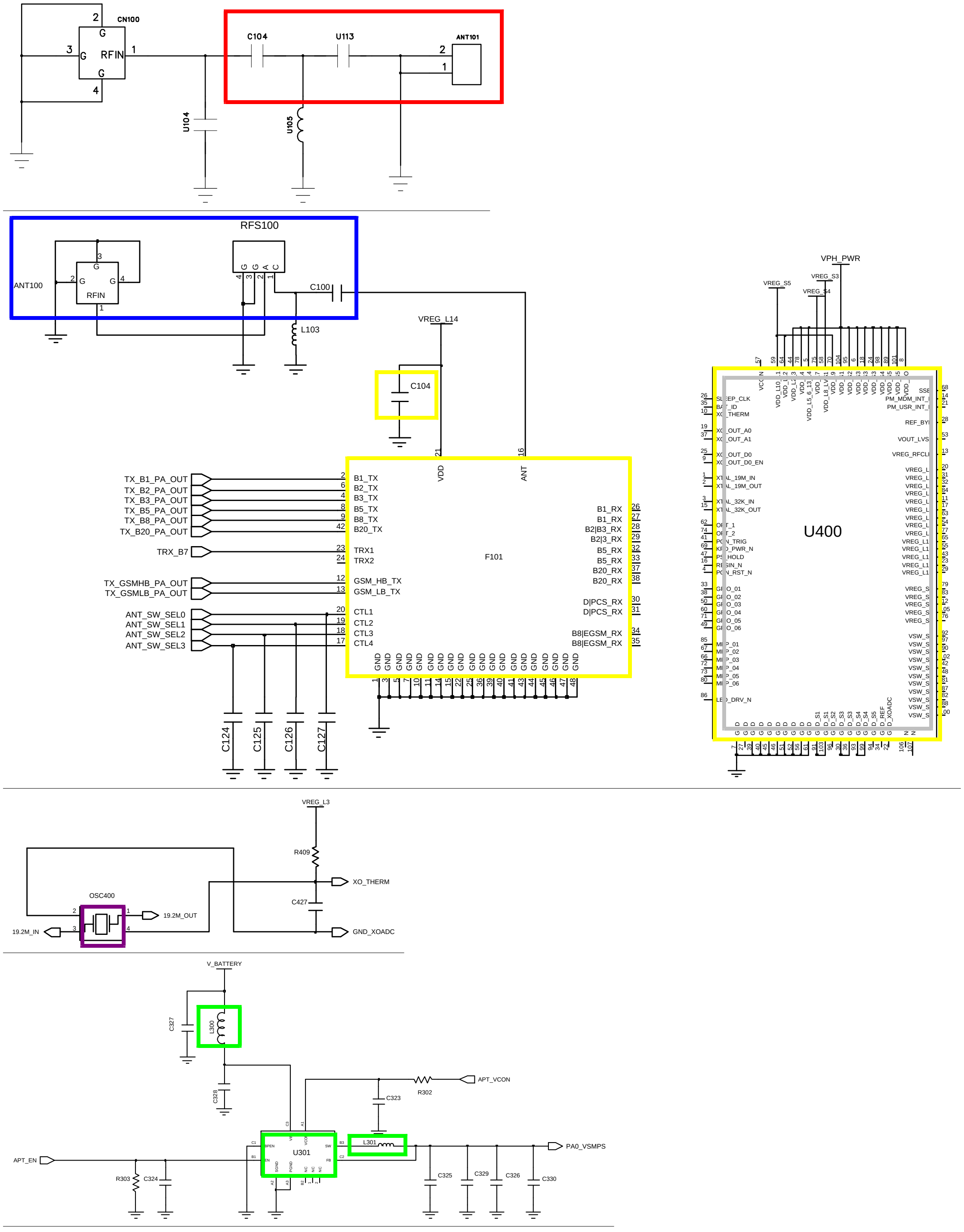

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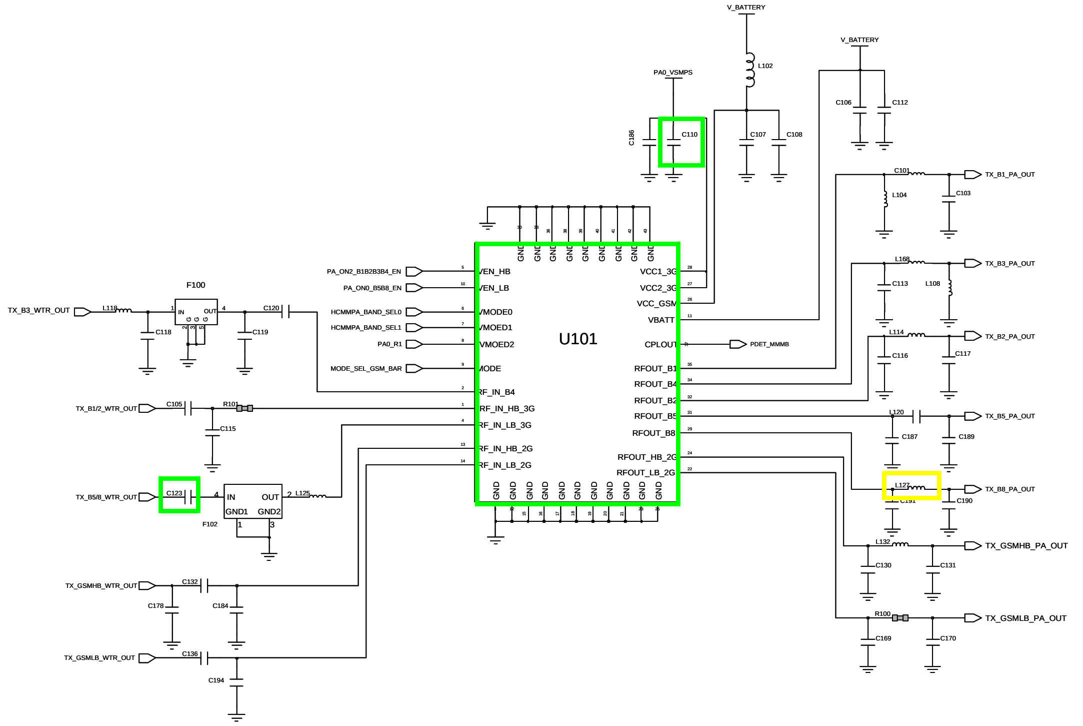

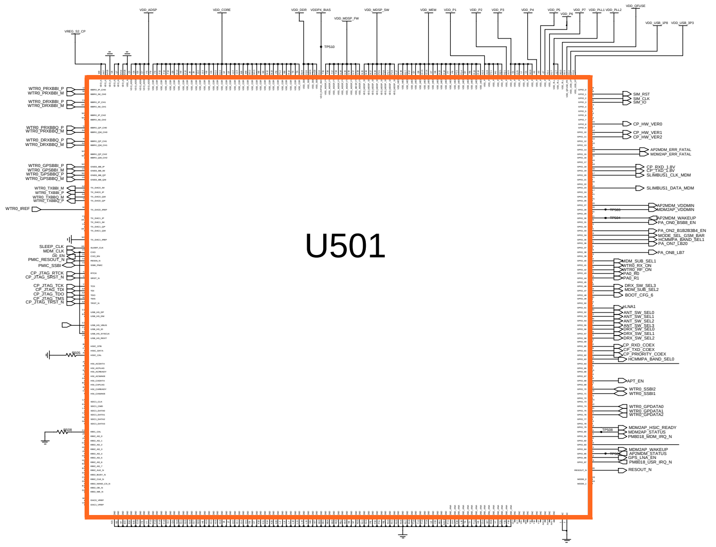

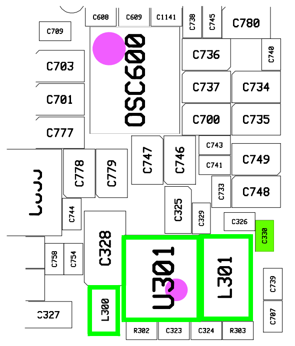

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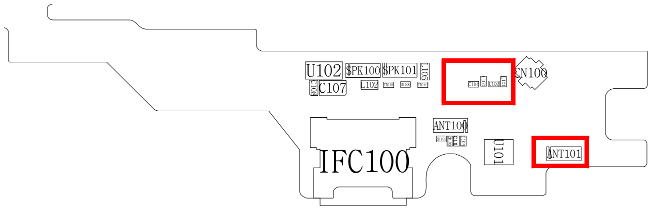

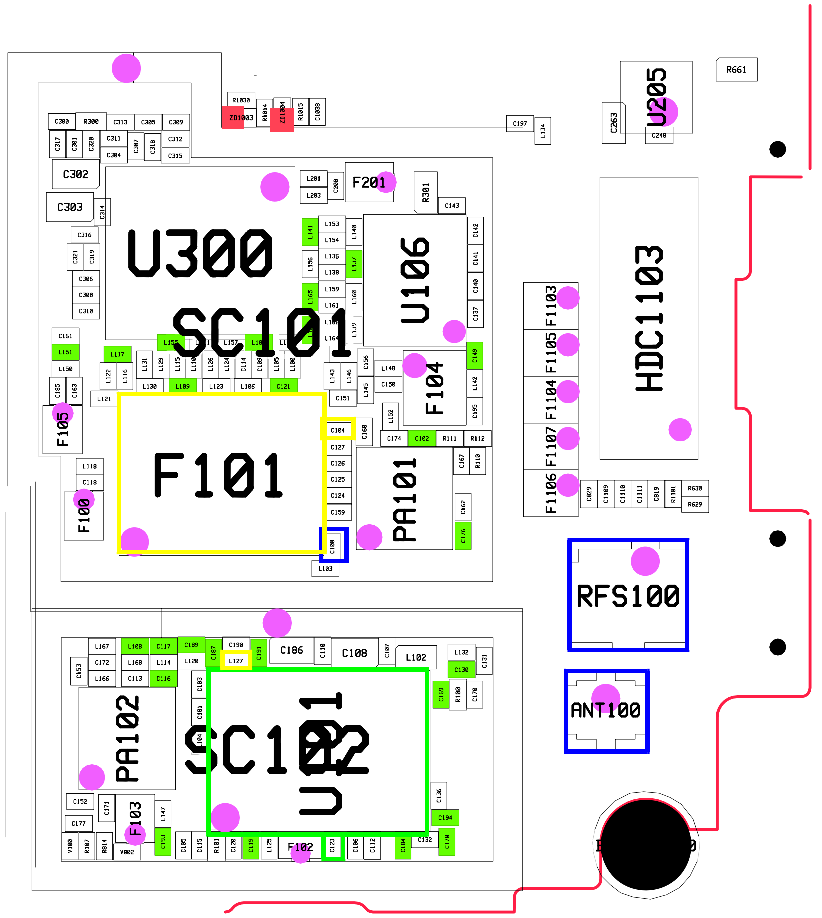

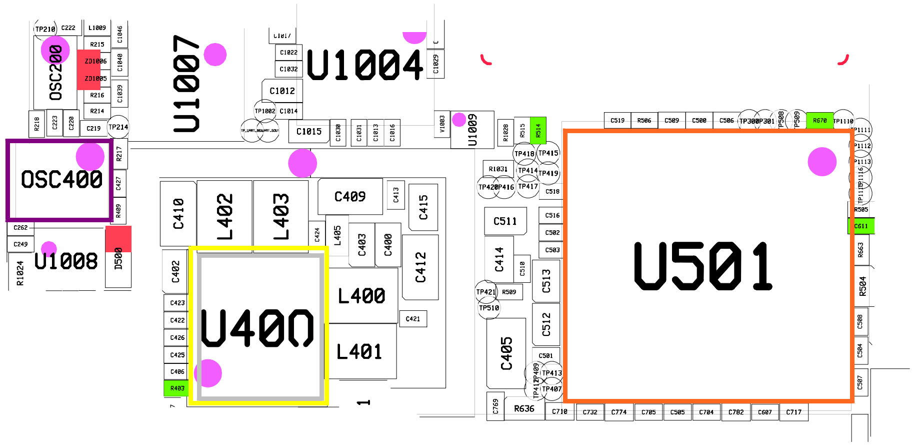

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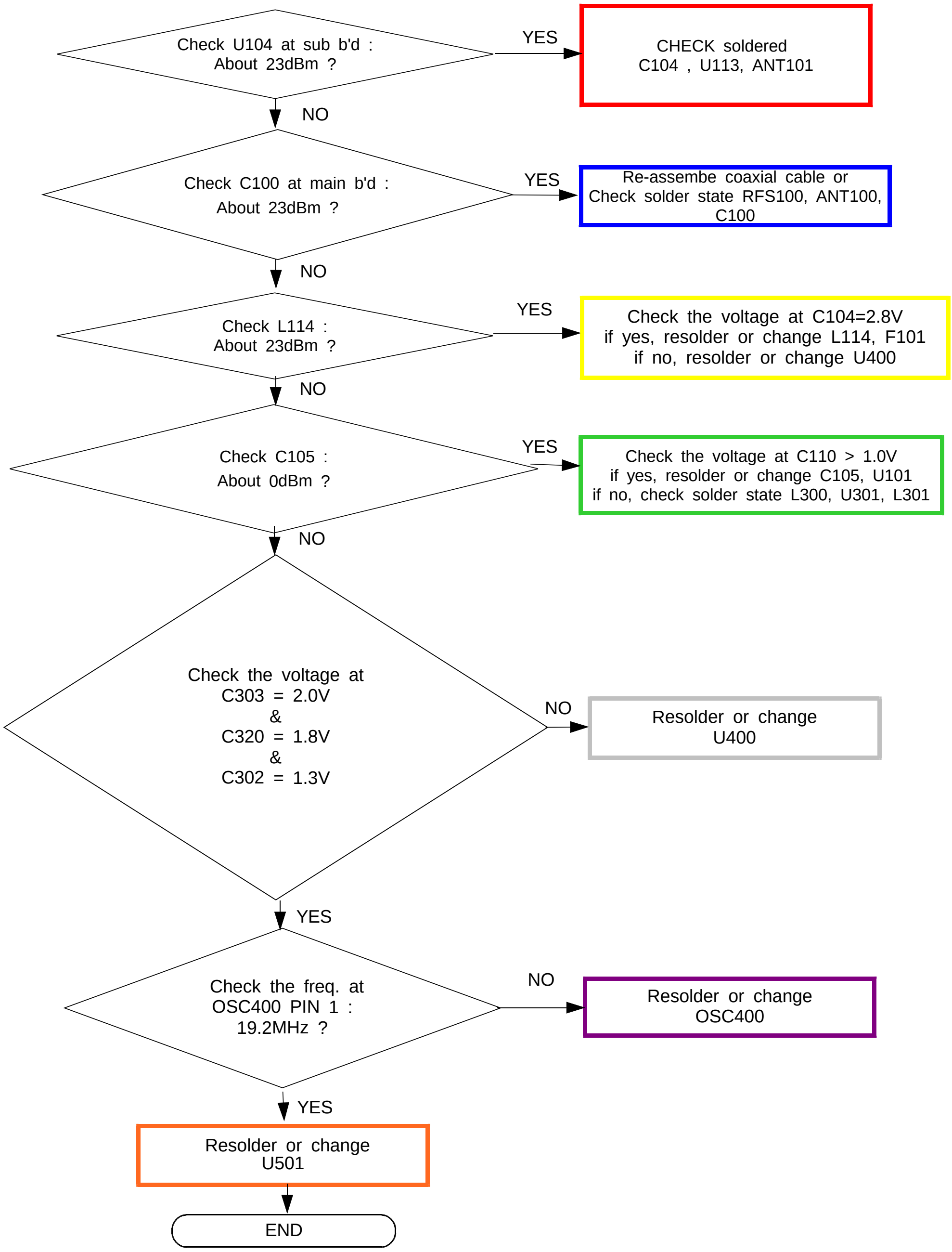
8-3-39. WCDMA1900 TX



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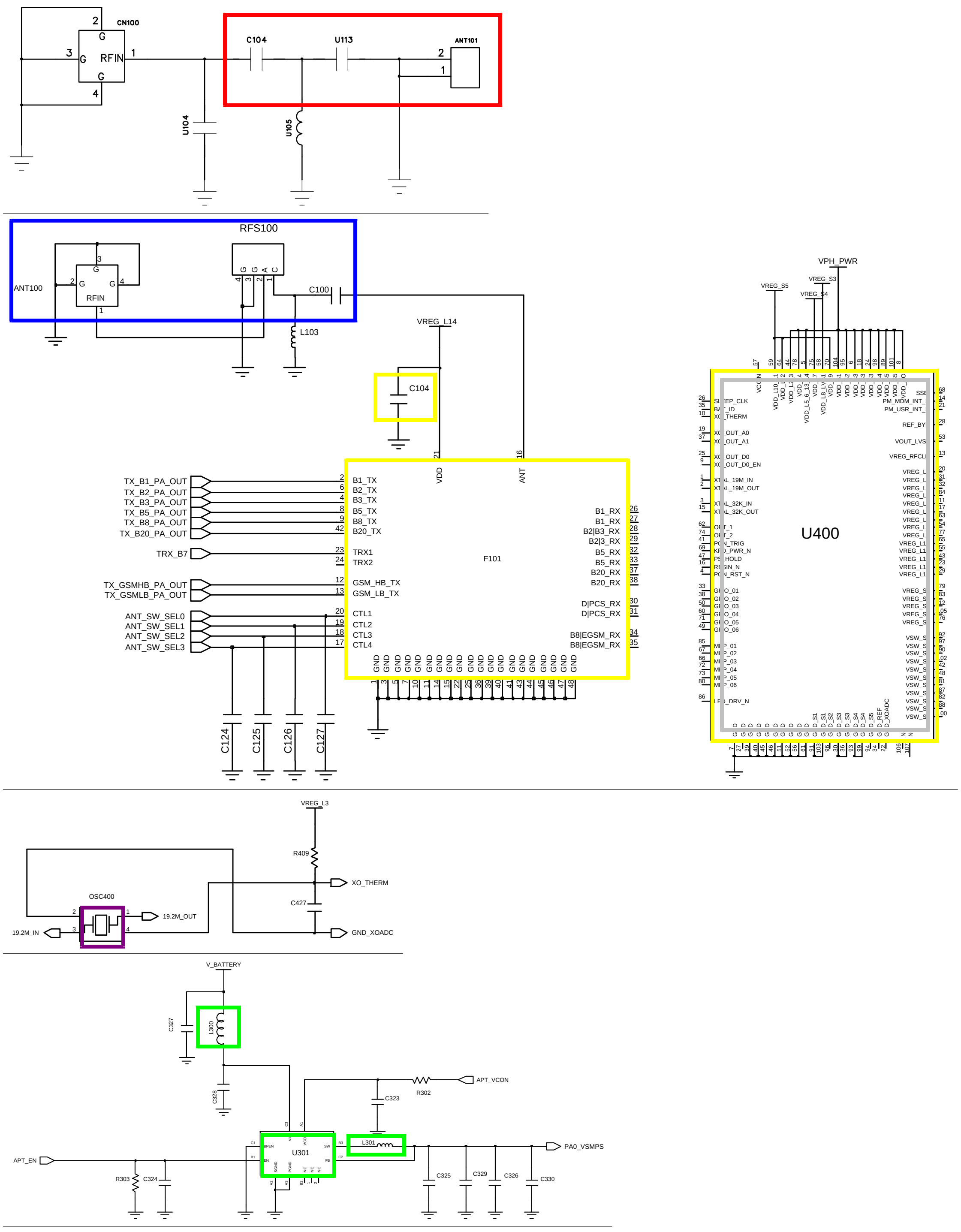

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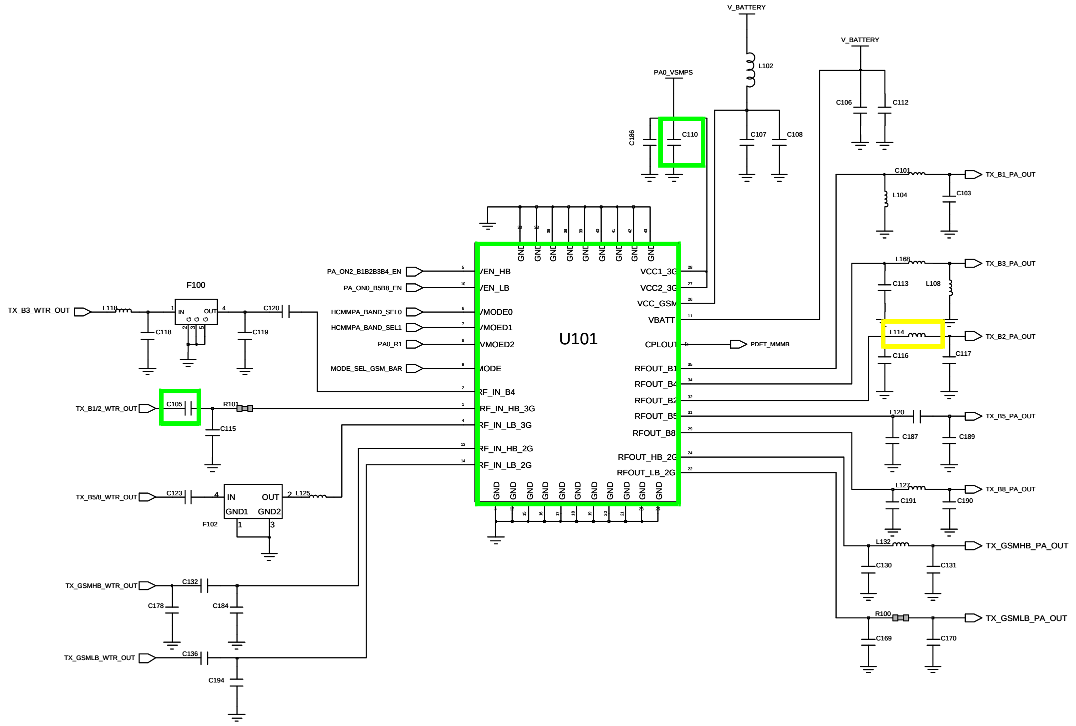

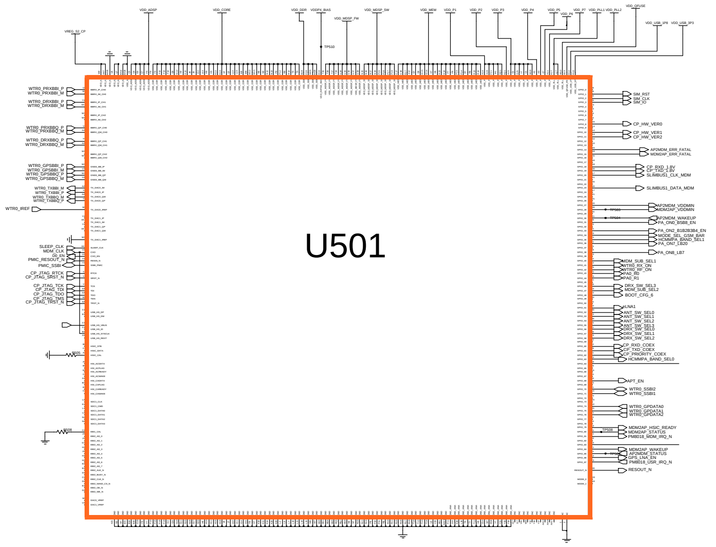

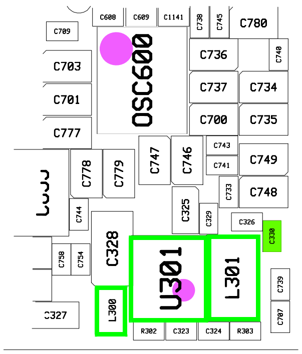

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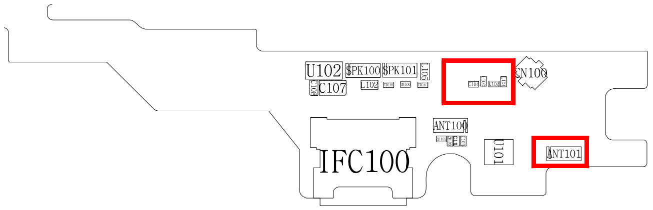

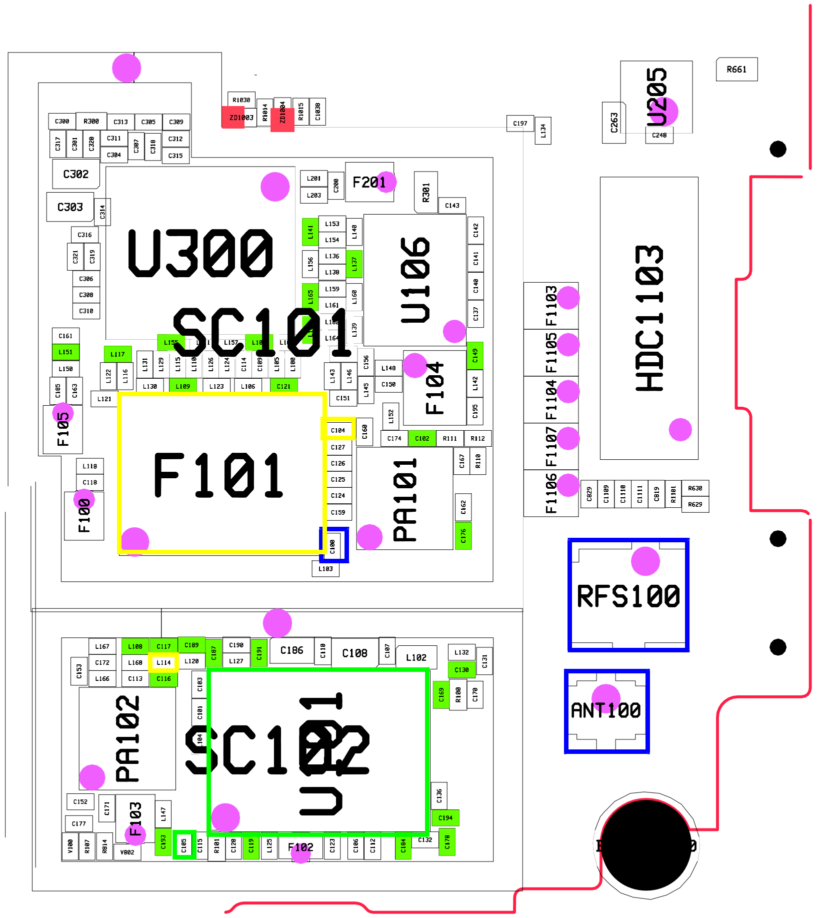

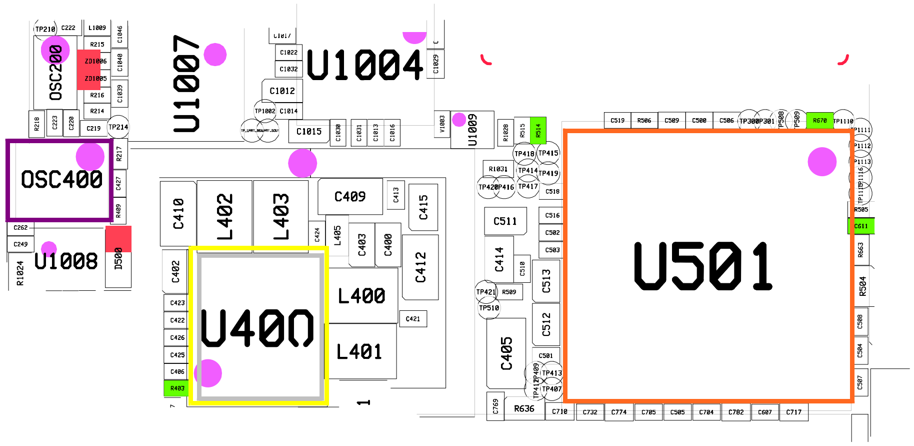

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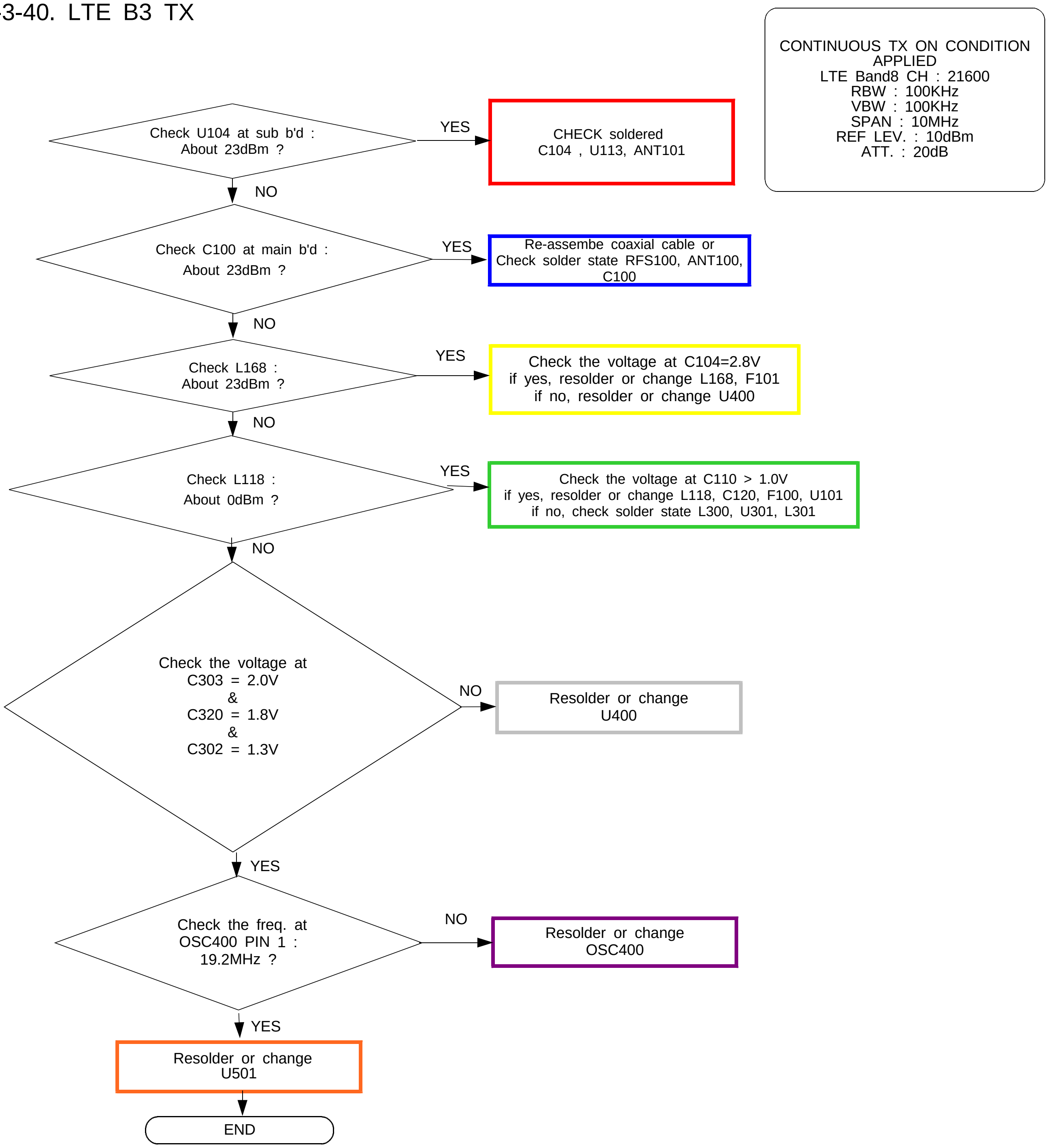
8-3-40. LTE B3 TX



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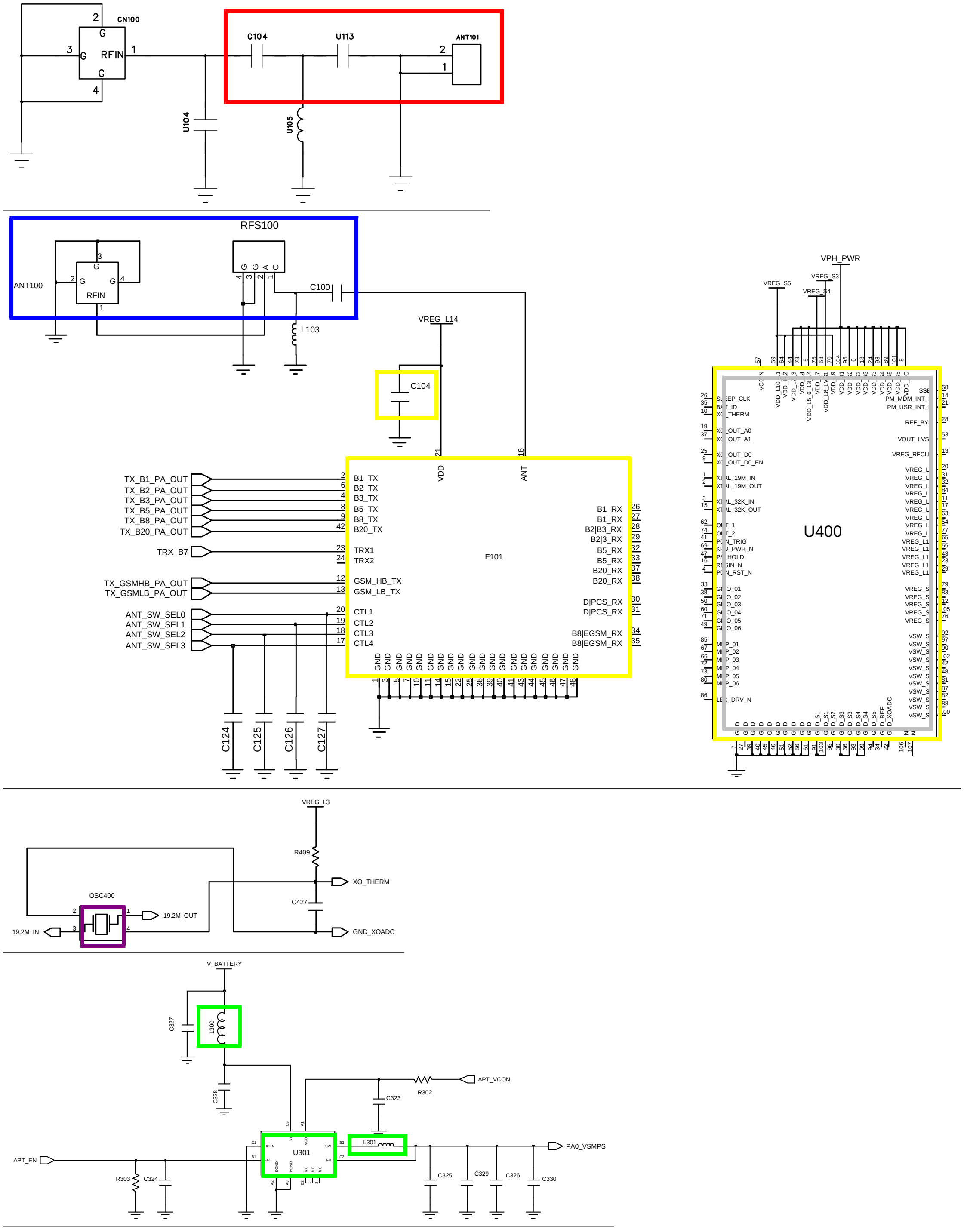

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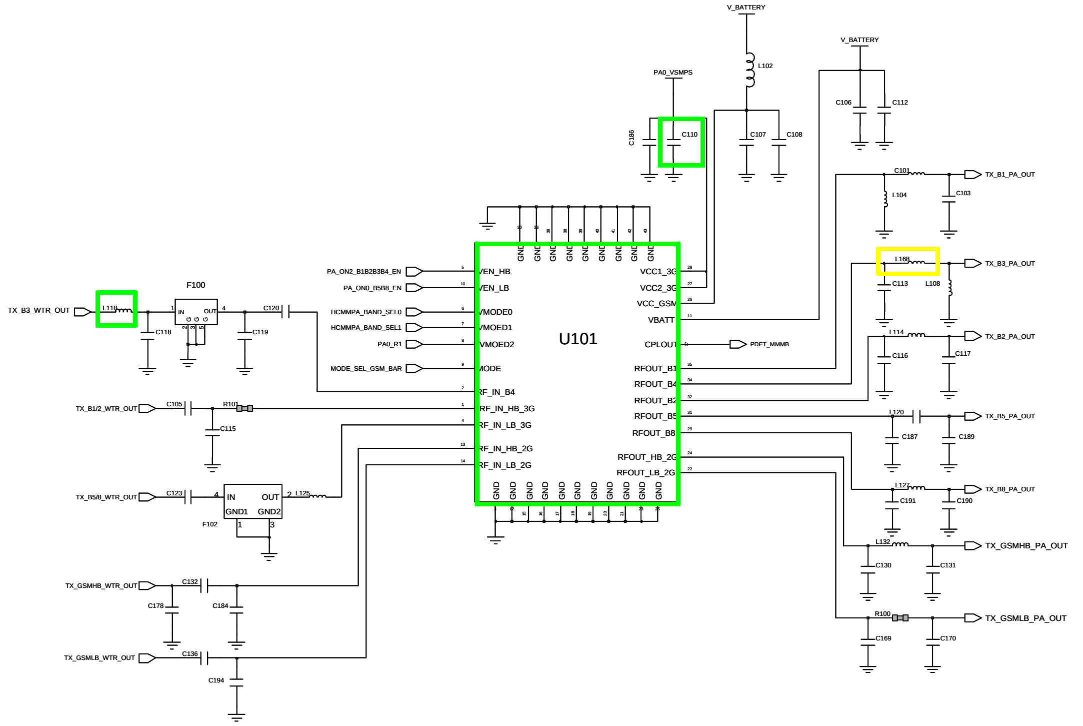

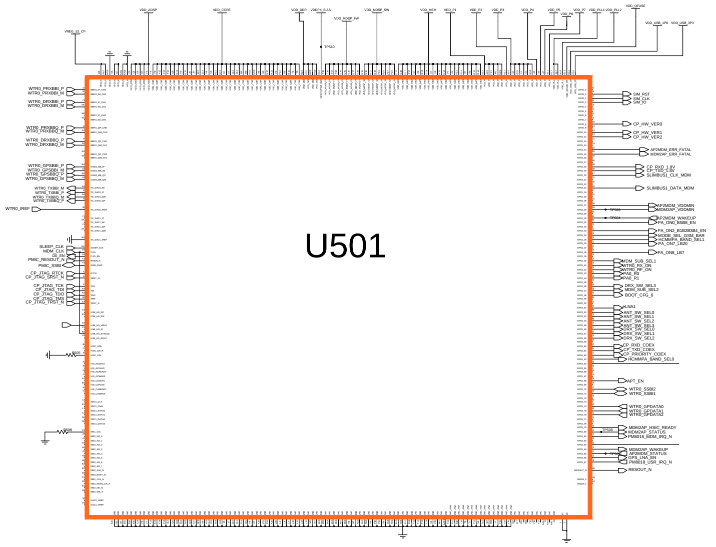

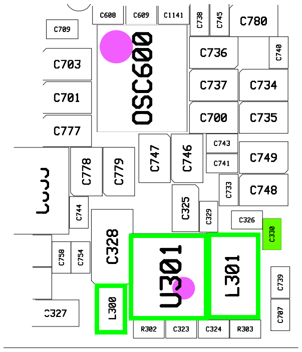

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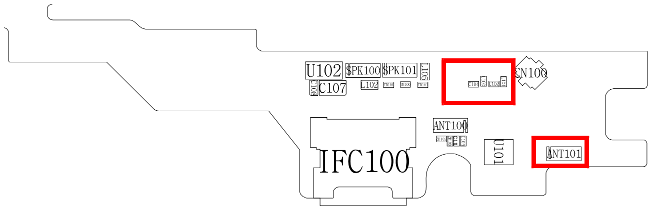

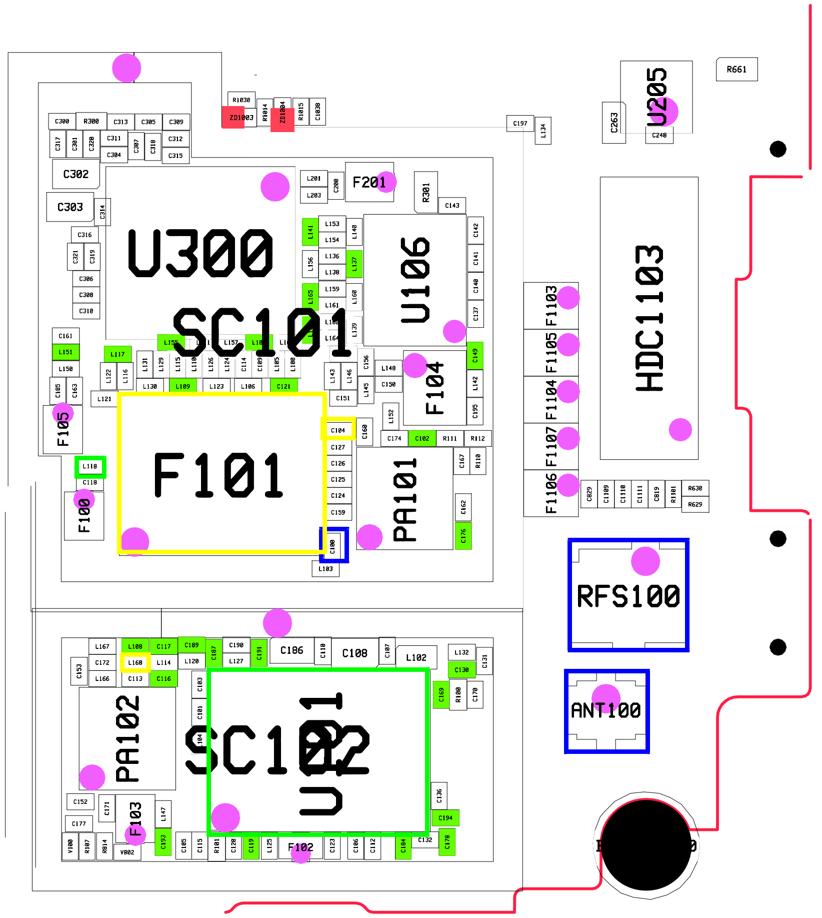

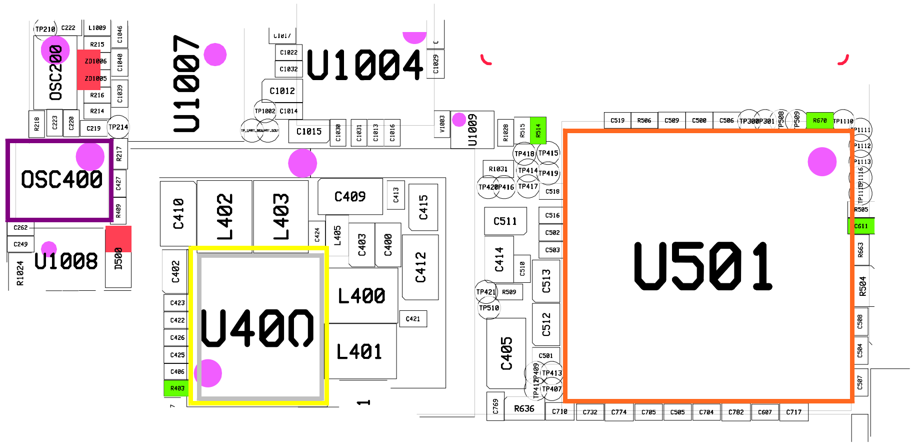

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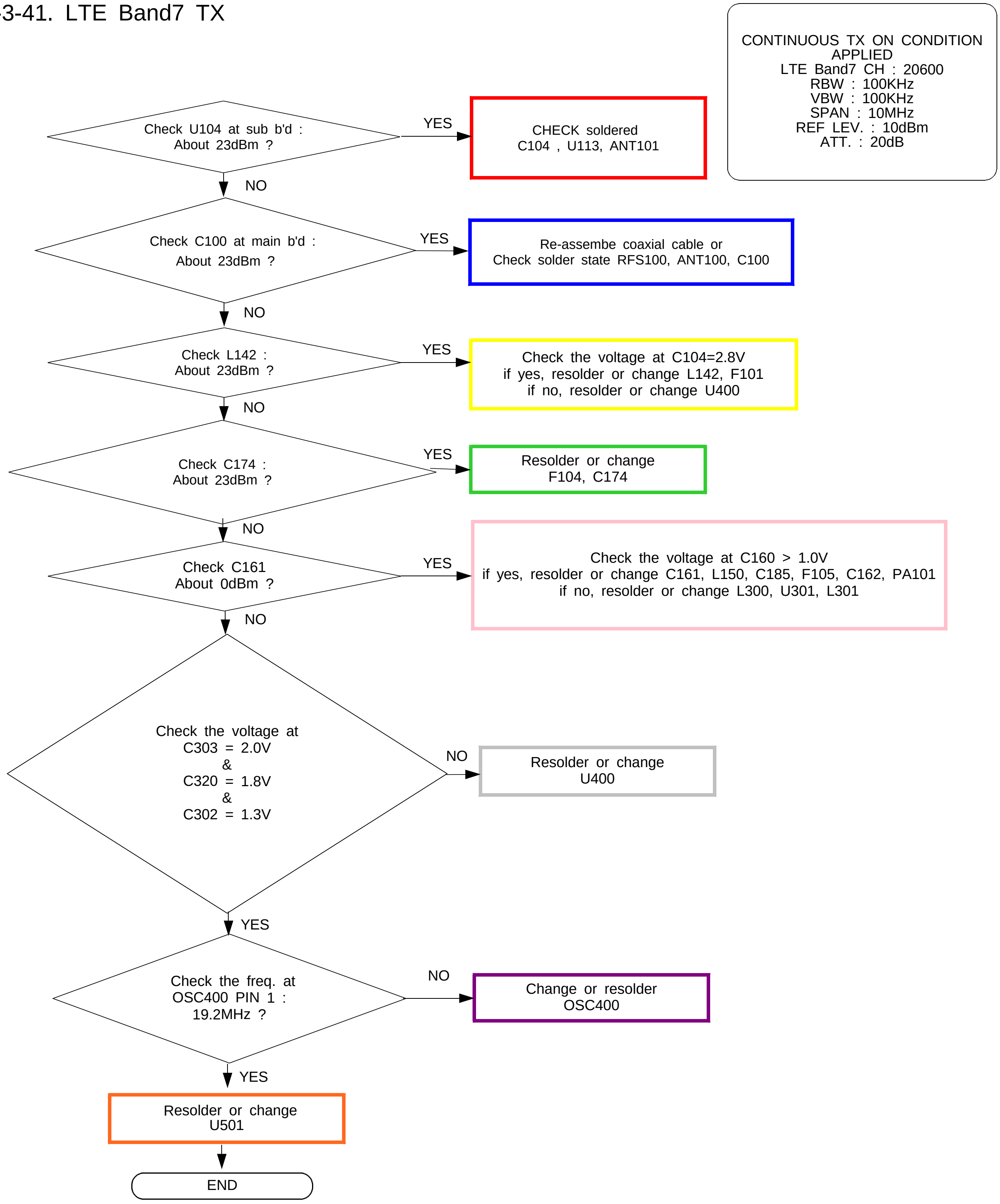
8-3-41. LTE Band7 TX



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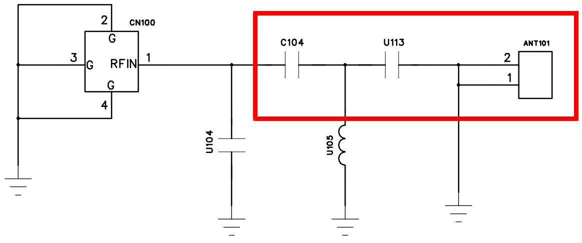

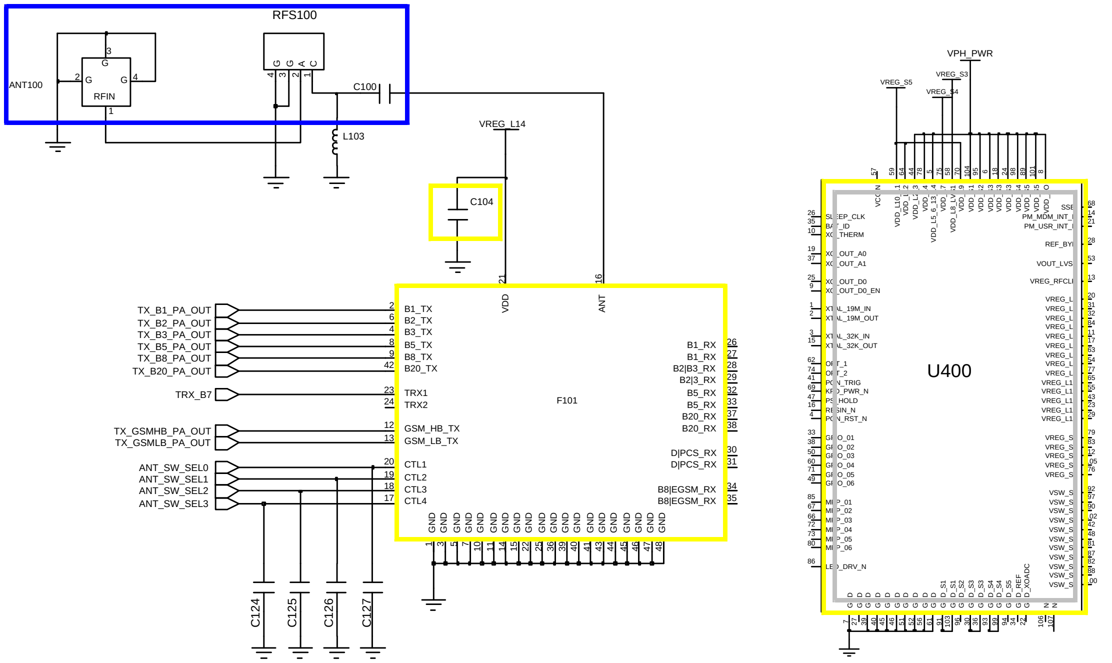

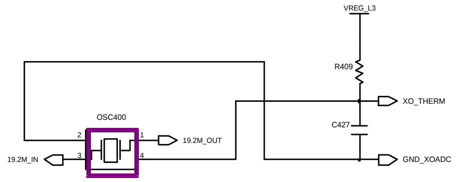

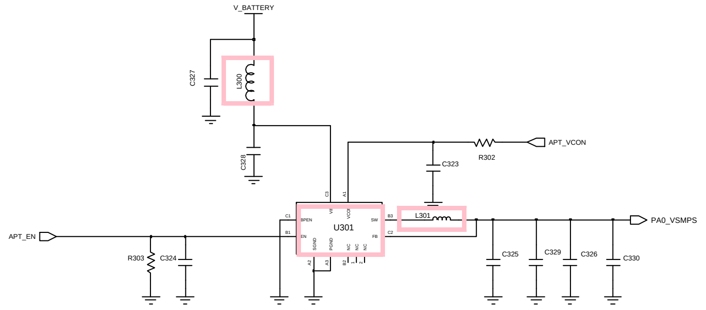

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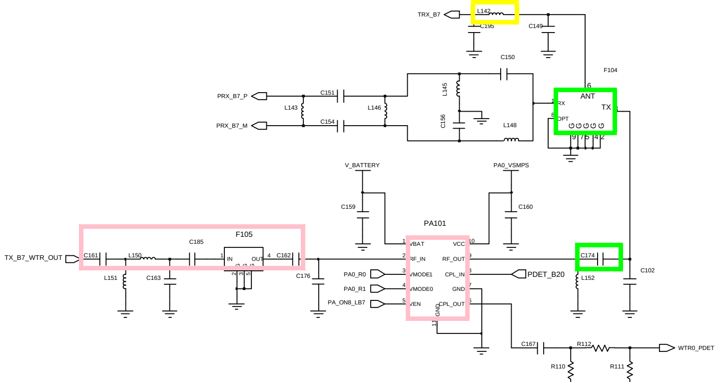

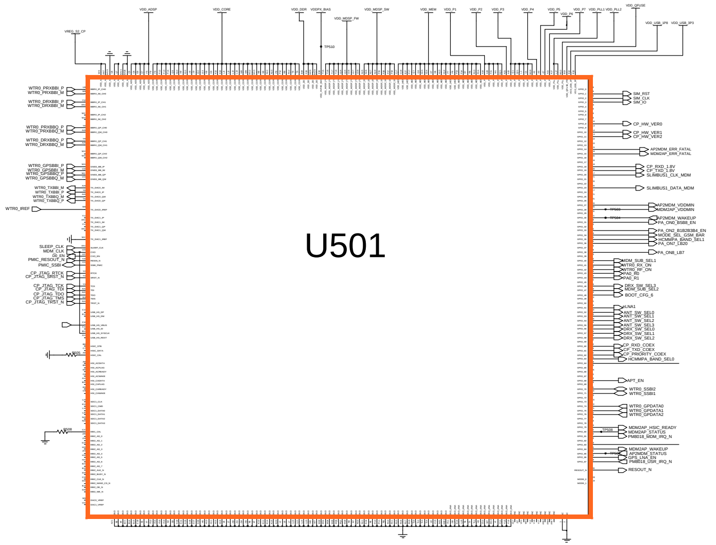

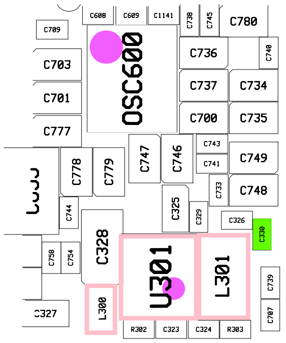

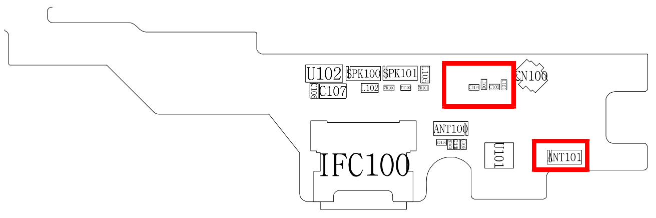

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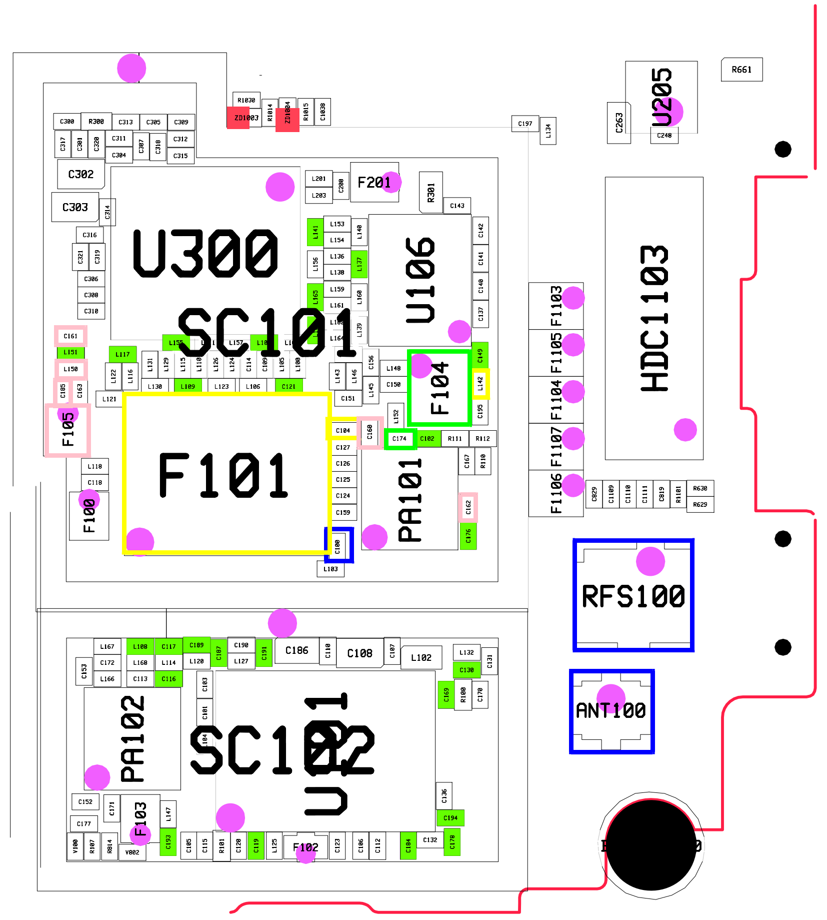

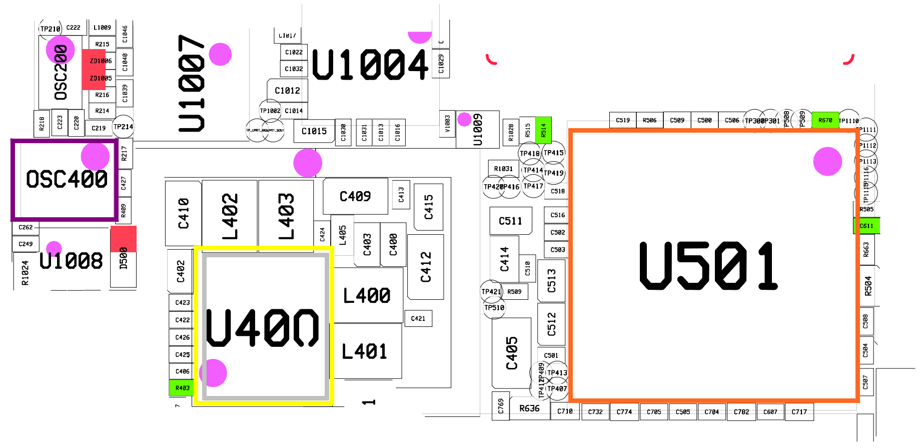

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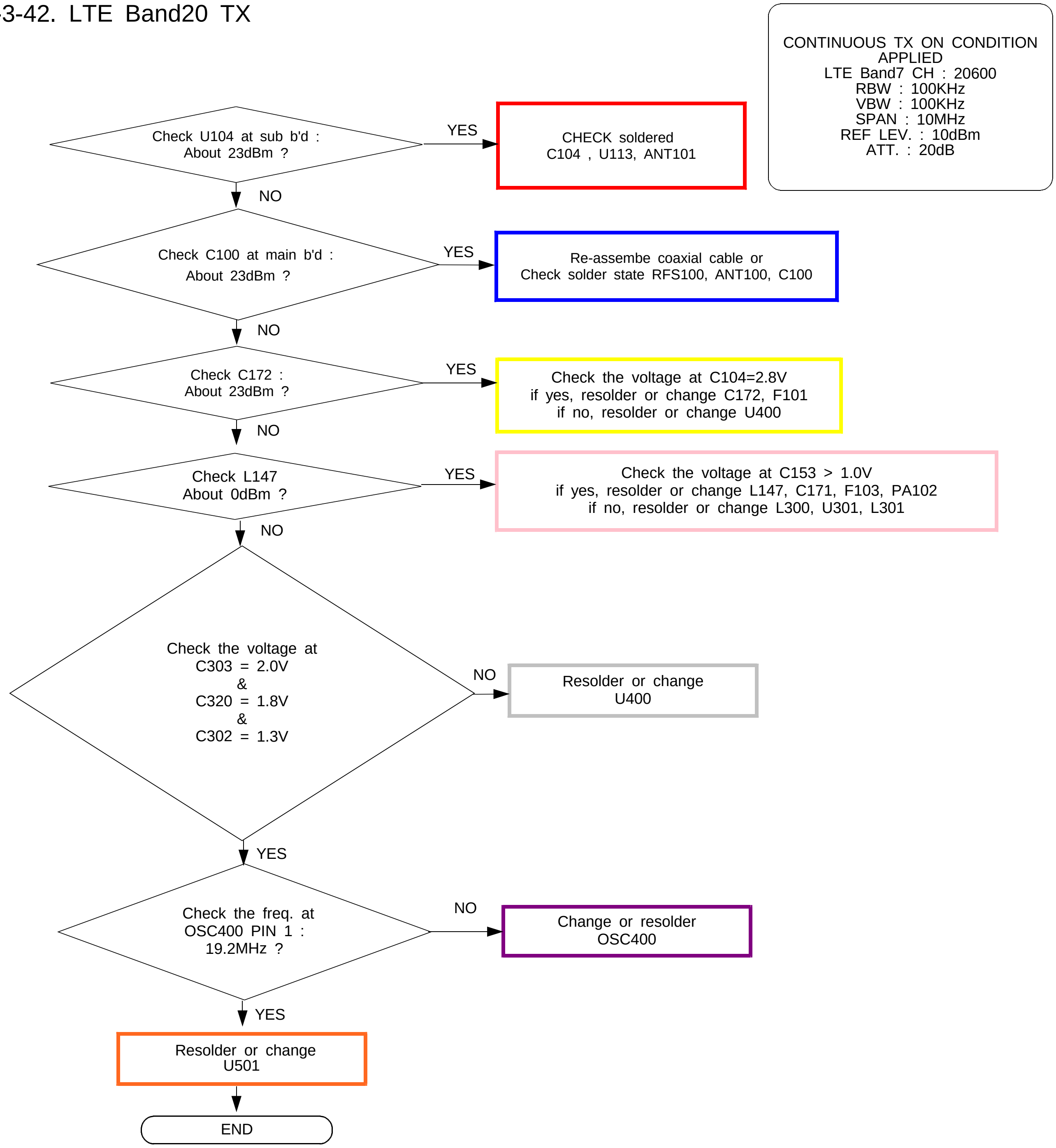
8-3-42. LTE Band20 TX



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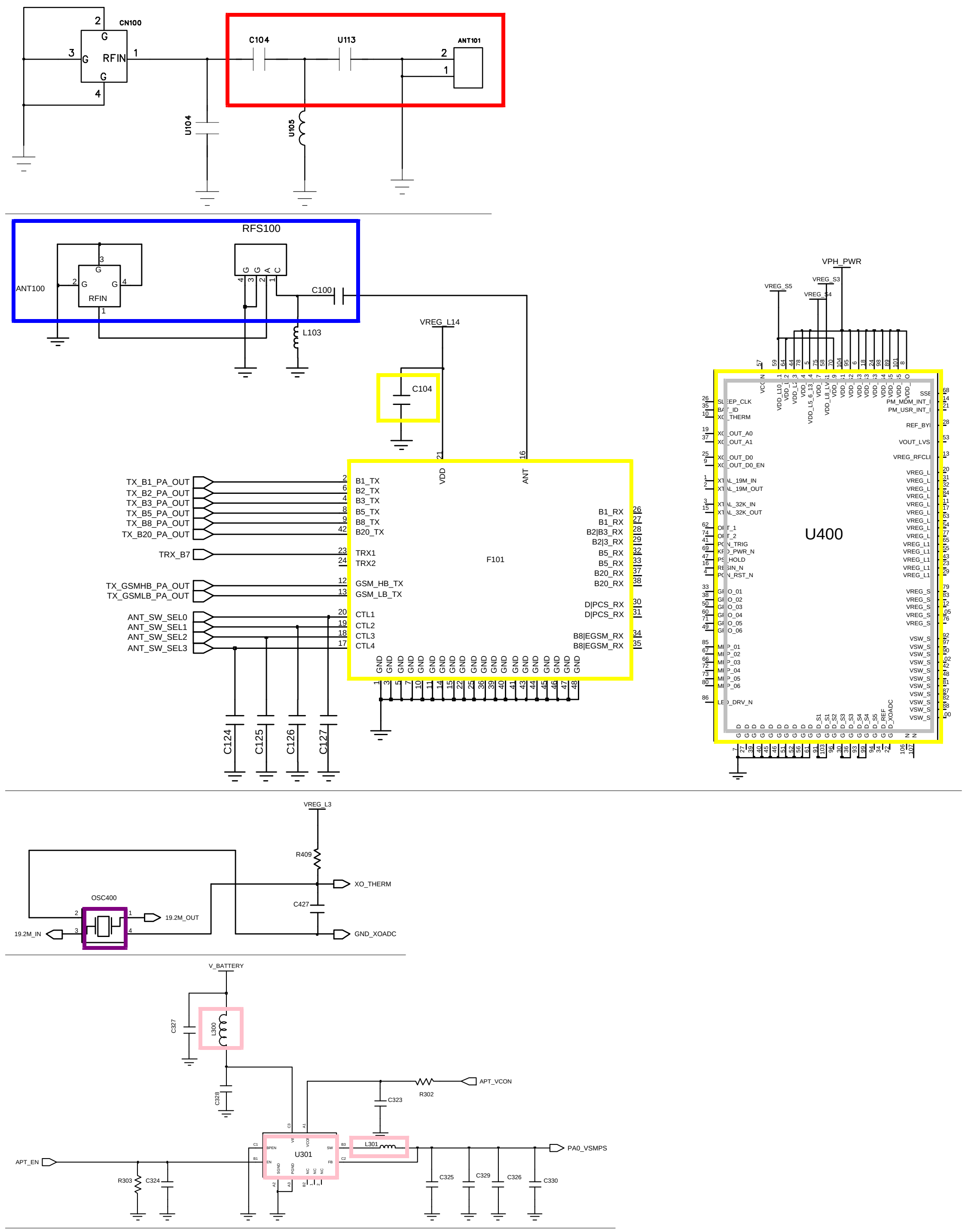

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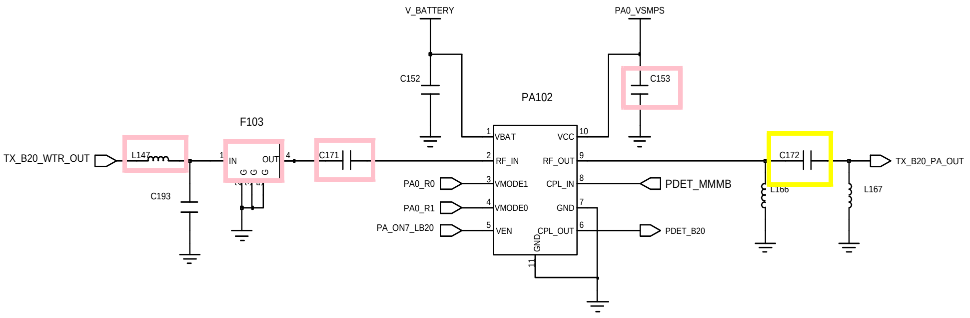

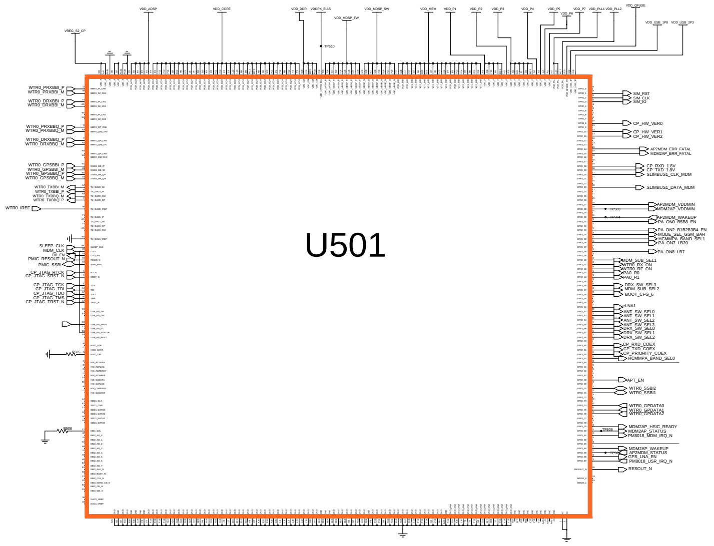

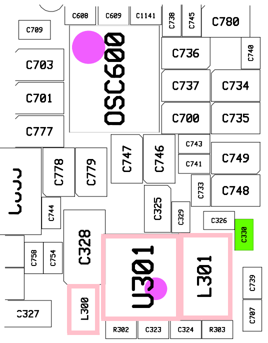

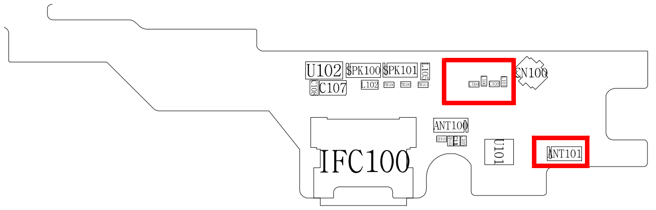

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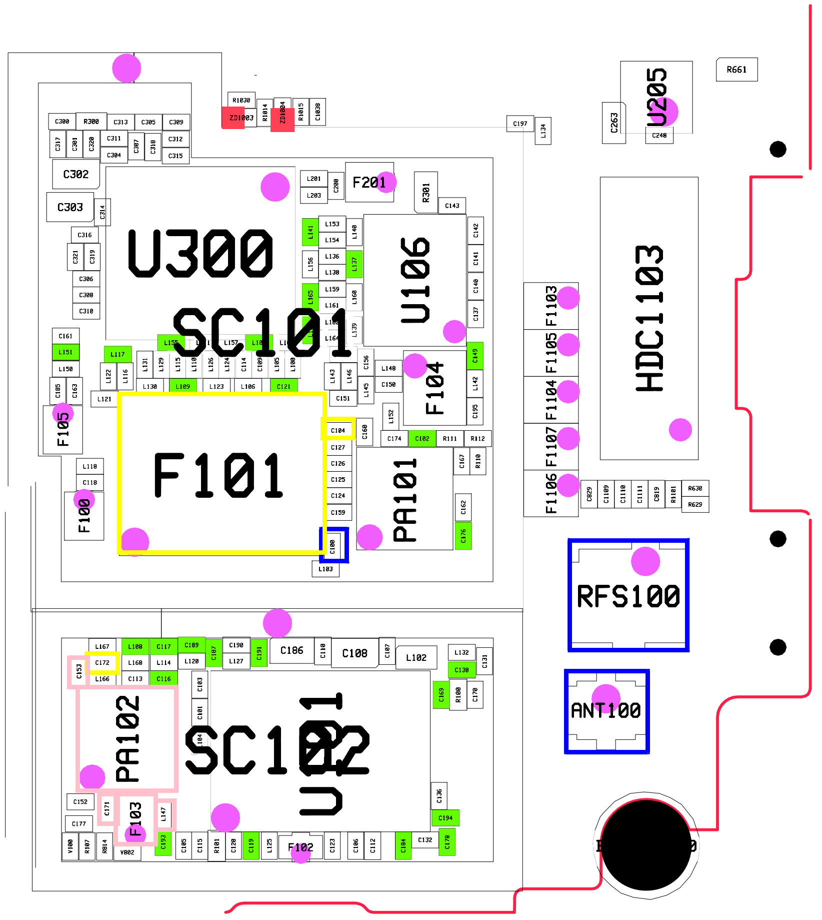

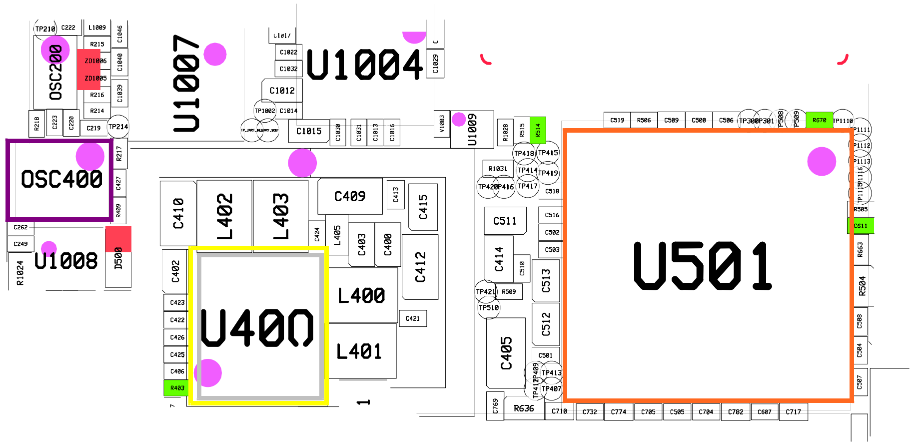

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8-4. Service Schematics

- NC Point(Top View)

●: NC

	1	2	3	4	5	6	7
A	○	○	○	○	○	○	○
B	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○
E	○	○	○	○	○	○	○
F	○	○	○	○	○	○	○
G	○	●	○	○	○	○	○

U202

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	○		○		○		○		○		○		○		○		○
B		○		○		○		○		○		○		○		○	
C	○		○		○				○						○		○
D		○				○		○		○		○		○		○	
E	○		○		○		○		○								○
F		○		○		○		○		○				○		○	
G					○				○				○		○		○
H		○		○				○		○				○		○	
J	○		○		○				○		○		○				○
K		○		○		○		○		○		○		○		○	
L	○		○		○		○		○		○		○		○		○
M		○		○		○		○		○		○		○		●	
N	○		○		○		●		○		○		●		○		○
P		●		○		○		○		○		○		○		○	
R	○		○		○		○		○		○		○		○		○
T		○		●				○		○		○		○		○	
U	○		○				○		○				○		○		○
V		○		○				○		○		○		○		○	
W	○		○		○		○		○		○		○		○		○

U301

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B	●	○	○	○	○	○	●	●	●	●	●	●	●	●
C	●	○	●	○	○	○	●	●	●	●	●	●	●	●
D	●	●	●	●								●	●	●
E	●	●	●		○	○	○	○	○	○		●	●	●
F	●	●	●		○					○		●	●	●
G	●	●	○		○					○		●	●	●
H	●	●	●		○					○		●	●	●
J	●	●	●		○					○		●	●	●
K	●	●	●		○	○	○	○	○	○		●	●	●
L	●	●	●									●	●	●
M	●	●	●	○	○	○	●	●	●	●	●	●	●	●
N	●	○	●	○	○	●	●	●	●	●	●	●	●	●
P	●	●	○	○	○	○	○	●	●	○	●	●	●	●

UME600

	1	2	3	4	5	6	7	8	9	10
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B	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○	○
E	○	○	○	○	○	○	○	○	○	○
F	○	○	○	○	○	○	○	○	○	○
G	○	○	●	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○
J	●	○	○	○	○	○	○	○	○	●

U903

	1	2	3	4	5	6
A	○	○	○	○	○	○
B	○	○	○	○	○	○
C	○	○	●	●	○	○
D	○	○	●	●	○	○
E	○	○	○	○	○	○
F	○	○	○	○	○	○

U1007

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B	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○
E	○	○	○	○	○	○	○
F	○	○	○	○	○	○	○
G	○	○	○	○	○	○	○

U1109

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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B	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
C	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
D	○	○	○				○		○				○	○	○
E	○	○	○										○	○	○
F	○	○	○			○	○	○	○	○			○	○	○
G	○	○	○			○		○	○	○			○	○	○
H	○	○	○	○		○	○	○	○	○		○	○	○	○
J	○	○	○	○		○	○	○	○	○		○	○	○	○
K	○	○	○	○		○	○	○	○	○		○	○	○	○
L	○	○	○			○	○	○	○	○			○	○	○
M	○	○	○			○	○	○	○	○			○	○	○
N	○	○	○										○	○	○
P	○	○	○				○		○				○	○	○
R	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Y	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
U	●	○	○	○	○	○	○	○	○	○	○	○	○	○	●

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